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Maternal Depression And Child Adjustment

Catherine Mary Lee

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MATERNAL DEPRESSION AND CHILD ADJUSTMENT

by

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of the requirements for the degree of
Doctor of Philosophy

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Abstract

The present study was designed to examine the relation between maternal depression and child adjustment. Three major issues were addressed. First, to determine the specificity of observed effects to depression, four groups of subjects were included in the study: clinically depressed psychiatric patients, nondepressed psychiatric patients, nondepressed medical patients, and nondepressed community women. Second, to determine whether previous maternal reports reflected accurate perceptions of themselves and their children or were a function of a maternal negative response set, data on maternal adjustment, child adjustment, and mother-child interaction were obtained from multiple sources. Finally, the stability of observed effects was assessed by collecting data both early in the patient's treatment and six to eight weeks later.

Sixty-one mothers and the youngest of their children who was between the ages of seven and thirteen completed the study. Multiple measures of both maternal and child adjustment were obtained; mothers and children also took part in a videotaped interaction, which was subsequently coded into positive, negative, and neutral behaviors.

Results indicated that the depressed mothers were more severely impaired psychologically and socially than were mothers in the other three groups. Despite a reduction of their depression from moderate to mild levels, they reported persistent social dysfunction. Depressed mothers described their children as having various behavior problems; clinicians also rated these children as demonstrating disturbed

behavior suggesting that maternal reports reflect veridical perceptions of problems in these children.

Although the offspring of the depressed mothers were the most impaired children in the sample, the lack of significant differences between children of depressed and nondepressed psychiatric patient mothers suggests that child adjustment is more strongly related to the severity of maternal psychopathology than it is to diagnostic status. Despite some improvements in child adjustment ratings, children of disturbed mothers continued to evidence problems at the second session.

Analyses of the observational data revealed no differences between groups in terms of postive or negative behavior on the part of either mothers or children. These findings suggest that dysfunctional interactions found in other studies may reflect situation-specific difficulties, rather than global skill deficits.

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My parents Gerard and Maureen Lee fostered my educational aspirations through the example of their intelligence and diligence in whatever they undertook. Their unfailing support has been highly significant in my pursuit of higher education. Finally, deep gratitude is due to my husband John Hunsley. His faith in my abilities, his example of academic excellence, and his willingness to endlessly discuss the children of depressed mothers have facilitated my achieving this goal which I cherish.

A seminal study conducted by Weissman and her colleagues (e.g., Weissman & Paykel, 1974; Weissman, Paykel, & Klerman, 1972) found that depressed women experience wide-ranging role difficulties. These investigators interviewed 40 depressed women aged 25-60, and 40 nondepressed women in the community, matched with respect to socio-demographic characteristics. The women took part in structured interviews assessing their social adjustment in various domains. They were interviewed on six occasions over the course of the depressive episode, the recovery, and at follow-up. In striking contrast to the reports of the nondepressed women, the depressed women reported impairments involving almost every aspect of their roles as parents and spouses.

Weissman et al. (1972) reported that depressed patients described their mothering as less involved, less affectionate, and more hostile than did their nondepressed counterparts. Furthermore, the mothers' difficulties were related to specific problems with their children at specific ages. Depressed mothers of infants reported that their children demonstrated an inability to separate from them; depressed mothers of school-aged children reported that their children became more demanding, and fought more amongst themselves; and finally, depressed mothers of adolescents reported that their relationships with their children were characterized by intense conflict. In addition, whereas depressed mothers of younger children reported that their offspring responded empathically to maternal distress, other mothers reported that their teenage children tended to exploit their helplessness.

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Introduction

Depression is the most common of the psychiatric disorders, with an incidence world-wide of 100 million people per year (Weissman, Myers, & Harding, 1978). Recent studies indicate that it is particularly prevalent in women of child-rearing age. Berg, Butler, Houston, and McGuire (1984), for example, found that 30 percent of a sample of women with young children attending general practitioners' offices reported levels of anxiety or depression warranting treatment. Using the more stringent criterion of diagnostic status, Bromet and Cornely (1984) found that 12 percent of mothers of preschool children had experienced an episode of diagnosable affective disorder during their child-bearing years. Similarly, Brown, Bifulco, and Harris (1987) found that over the course of a year, 10 percent of previously nondepressed women experienced the onset of a diagnosable depressive disorder. In recent years there has been increasing attention paid to interpersonal factors implicated in the etiology and maintenance of depressive symptomatology (e.g., Brown et al., 1987; Coyne, 1976; Coyne, Kahn, & Gotlib, 1987). This interpersonal focus was based on consistent findings from a number of studies that depression was associated with difficulties in both marital and parenting roles (e.g., Brown & Harris, 1978; Ilfeld, 1977; Weissman & Paykel, 1972). In formulating an interpersonal theory of depression, Coyne (1976) proposed that depressive symptoms elicit feelings of guilt in others and serve to inhibit expressions of hostility. People seek to reassure and offer support to the depressed person, but also withdraw from

interaction; in turn, the depressed person becomes distressed by the lack of genuine support and displays more symptomatology, thereby escalating the negative cycle of interaction.

Early investigations of this model indicated that even in brief encounters with strangers, depressive symptoms rapidly elicit negative reactions from other people (e.g., Gotlib & Robinson, 1981; Howes & Hokanson, 1979). Given the strength of these findings, researchers have recently begun to examine the intimate relationships of depressed people. Studies of the marriages of depressed people indicate that these relationships are often charactertized by hostility, friction, and negative reciprocity (see Gotlib & Hooley, in press, for a detailed review of these studies). Although early investigations also established that depressed women experience difficulties in their parental roles and derive little satisfaction from their relationships with their children (e.g., Bromet & Cornely, 1984; McLean, 1976; Weissman & Paykel, 1974), until recently the interactions between depressed mothers and their children have received surprisingly little attention.

There are, however, important reasons for investigating the relations between depressed women and children. In particular, there are specific aspects of depressive symptomatology that would likely impair the mother's ability to provide her child with adequate parenting. For example, a number of investigators have found that individuals experiencing unipolar depression are characterized by an increased tendency to be self-focused (Ingram, Lumry, Cruet, & Seiber, 1987; Smith & Greenberg, 1981). In fact, Lewinsohn, Hoberman, Teri,

and Hautzinger (1985) and Pyszczynski and Greenberg (1987) have recently proposed that self-focused attention is a central process in the development and maintenance of unipolar depression. One obvious effect of this increased self-focus in depressed mothers would be a relative lack of involvement or a diminished responsivity to their children. Similarly, depression has also been associated with a tendency to view oneself and one's environment negatively (cf. Beck, 1967; Beck, Rush, Shaw, & Emery, 1979), a cognitive perceptual style that could be associated with parental hostility and lack of warmth towards the child.

These two characteristics of depressed persons may be especially salient in their roles as parents. Recent reviews of factors affecting child development have stressed the importance of the interactions between parents and children, and have emphasized a systemic conceptualization of the reciprocal influence of parents and children on one another (e.g., Maccoby & Martin, 1983). To promote optimal child development, attentive, warm, stimulating, and non-restrictive parenting styles are required (Belsky, 1984). Unfortunately, certain characteristics of depressed persons, such as the increased self-focus and negative cognitive style noted above, may interfere with the parent's ability to provide such care-giving, thereby jeopardizing the child's socio-emotional development. If children of depressed parents are indeed at risk for various behavioral and emotional difficulties, this has significant implications for the family's long-term adjustment. The scene may be set for an escalating cycle in which

parental depression is associated with child difficulties, and child disturbance prolongs parental difficulties.

In sum, there have been suggestions in the literature that depression is prevalent in mothers with young children and that it is associated with dissatisfaction in parenting. Together with these findings, there is an accumulation of evidence indicating that the children of depressed parents are at increased risk for a variety of psychological and social difficulties (Beardslee, Bemporad, Keller, & Klerman, 1983; Orvaschel, Weissman & Kidd, 1980; Zahn-Waxler, Cummings, Ianotti, & Radke-Yarrow, 1984).

The present study was designed to explore longitudinally the nature of the relation between clinical depression in mothers and adjustment in their children. Both maternal and child adjustment were assessed by means of multiple informants and measures, and mothers and children were also observed while interacting with one another. Finally, evaluations were conducted both early in mothers' treatment, and again six to eight weeks later.

Although depression in males is an important phenomenon warranting investigation, there are a number of reasons for choosing to examine the relationships between depressed women and their children. First, epidemiological studies indicate that depression occurs more frequently in women than in men, at approximately a 2:1 ratio (Weissman & Klerman, 1977). Second, studies of the marital interactions of depressed persons indicate that the interpersonal processes may be different in males and females and, more important, that the negative interpersonal effects of depression seem to be more prolonged for women than for men

(cf. Gotlib, 1986; Hinchliffe, Hooper, & Roberts, 1978). Finally, it has been suggested that because mothers are typically more involved in child-care than are fathers, the role of maternal disorder may have a more significant impact on children (Kokes, Harder, Fisher, & Strauss, 1980).

In designing this study, three distinct bodies of research were considered. These literatures all addressed the issue of mother-child interactions and depression, but each was derived from a different theoretical framework. To provide a background for the study, these literatures will be briefly reviewed. First, self-report studies and direct observational studies of depressed women and their children will be outlined. The second pertinent body of literature is composed of investigations of children designated as being "at risk" by virtue of parental affective disorder. These children of current or former depressed patients have been assessed by means of parental reports and direct clinical interviews. Finally, relevant studies from the realm of child psychopathology will be reviewed, with particular attention paid to parental characteristics that have been associated with child problems. In presenting these literatures, an attempt will be made to identify salient issues requiring further study, and to cull a methodology that combines the most appropriate measures from each area of research.

Interpersonal Studies of Depression

Early interview studies identified many domains in which depressed women report problems; subsequent observational studies have provided preliminary corroboration for some aspects of these self-report data.

A seminal study conducted by Weissman and her colleagues (e.g., Weissman & Paykel, 1974; Weissman, Paykel, & Klerman, 1972) found that depressed women experience wide-ranging role difficulties. These investigators interviewed 40 depressed women aged 25-60, and 40 nondepressed women in the community, matched with respect to socio-demographic characteristics. The women took part in structured interviews assessing their social adjustment in various domains. They were interviewed on six occasions over the course of the depressive episode, the recovery, and at follow-up. In striking contrast to the reports of the nondepressed women, the depressed women reported impairments involving almost every aspect of their roles as parents and spouses.

Weissman et al. (1972) reported that depressed patients described their mothering as less involved, less affectionate, and more hostile than did their nondepressed counterparts. Furthermore, the mothers' difficulties were related to specific problems with their children at specific ages. Depressed mothers of infants reported that their children demonstrated an inability to separate from them; depressed mothers of school-aged children reported that their children became more demanding, and fought more amongst themselves; and finally, depressed mothers of adolescents reported that their relationships with their children were characterized by intense conflict. In addition, whereas depressed mothers of younger children reported that their offspring responded empathically to maternal distress, other mothers reported that their teenage children tended to exploit their helplessness.

Follow-up interviews revealed a lag between the alleviation of depressive symptomatology and improvement in mother-child relations. At discharge from treatment, the depressed women, although symptomatically improved, continued to report difficulties in their parental roles. Similar findings were obtained at both six months and one year after discharge: again, although asymptomatic, formerly depressed women evidenced residual interpersonal problems, and remained at a level of interpersonal functioning below that of their nondepressed counterparts.

Although Weissman's work highlighted the association between depression and role difficulties, it has been criticized for its sole focus on the impairments of depressed women, and for failing to take into account the role of either the spouse or the child in contributing to family difficulties (Coyne et al., 1987). In addition, the investigation is limited by its reliance on self-report data. It is possible, for example, that the satisfactory mother-child relationships reported by normal women is the product of the "illusory glow" demonstrated by nondepressed people (Lewinsohn, Mischel, Chaplin, & Barton, 1980). Similarly, the conflicts and role impairments described by depressed women may reflect an accurate perception of their negative home environment, or alternatively, may be due to a tendency to be self-critical and to view their circumstances negatively.

Concerns about the link between depression and child-rearing have stimulated several investigations in the years since the publication of Weissman's early reports. Susman, Trickett, Iannotti, Hollenbeck, and Zahn-Waxler (1985), for example, compared the child-rearing attitudes

of depressed, abusive, and normal mothers of children aged four to nine. These investigators found depressed mothers to report higher levels of inconsistency, and to exhibit a tendency to be more over-protective than were control mothers. Abusive mothers expressed the most deviant attitudes towards child-rearing; depressed mothers' opinions represented fewer departures from the norm. Interestingly, nondepressed mothers with a history of major depression reported attitudes similar to those held by the normal mothers. In contrast to Weissman's findings, these data suggest that parenting difficulties may be associated with the depressed state, rather than with trait-like qualities of the mother.

Because maternal depression has been associated with dissatisfaction in parenting and with impaired adjustment in children, researchers have recently begun to conduct observational studies of the interactions between depressed mothers and their children. One of the first of these studies examined the impact of simulated maternal depression on three-month-old infants (Cohn & Tronick, 1983). These researchers found that in response to simulated maternal depression, infants structured their behavior differently and were more negative than were infants in the normal condition. These findings underscore the importance of considering the reciprocal influence in adult-child interactions. It is critical to consider not only maternal behavior, but also the manner in which the child's behavior contributes to the maintenance of patterns of dysfunctional adult-child interaction (Emery, Binkoff, Houts, & Carr, 1983).

In the first study with clinically diagnosed patients, Davenport, Zahn-Waxler, Adland, and Mayfield (1984) examined seven families with a manic-depressive parent (four mothers and three fathers). Home observations of mothers and their infant children, revealed that compared to nonpatient families, mothers in manic-depressive families were more unhappy and tense, and spent less time interacting with their children.

Further investigation of the interactions between bipolar parents and their children was conducted by Radke-Yarrow, Cummings, Kuczynski, and Chapman (1985). These investigators assessed two- to three-year-old children of bipolar mothers, together with children of mothers suffering from unipolar depression, minor depression, and mothers with no history of affective disorder. Radke-Yarrow et al. found that 55 percent of children of affectively disordered mothers were insecurely attached, and this pattern was particularly prevalent in children of bipolar mothers. No differences in child attachment were found in relation to mothers' self-reported mood state. In addition, compared with mothers of insecurely attached children, mothers of securely attached infants were observed to express positive affect toward their infants more frequently, and to express negative affect towards them less often.

In a recent study investigating risk factors in infant development, Lyons-Ruth, Zoll, Connell, and Grunebaum (1986) examined a sample of low SES mothers and infants referred to a clinical intervention service, and a comparison group of low SES mothers and infants with no history of social agency involvement. Although

maternal depression was not a criterion for subject selection, Lyons-Ruth et al. found that approximately half the mothers in the total sample reported depressive symptoms above the cutoff point for mild depression on the Center for Epidemiological Studies - Depression scale (CES-D: Radloff, 1977). Furthermore, maternal depression was extremely stable from intake to follow-up, six to eighteen months later. High depression scores were found in mothers who had histories of hospitalization for a broad spectrum of psychological disorders, and was not restricted to affective disorders. Molar ratings of videotapes of home interactions between mothers and their infants revealed that maternal depression was associated with increased maternal covert hostility, increased interfering manipulation, and increased affectivity. Maternal depression was also associated with lower scores on both the mental and motor indices of the Bayley Scales of Infant Development. Consistent with Radke-Yarrow et al.'s findings, Lyons-Ruth et al. found no linear relationship between maternal self-reported depression and infant attachment. However, Lyons-Ruth et al. did find a curvilinear relationship between self-rated maternal depression and infant attachment, with insecure attachment being most common at low and at high CES-D scores. In explaining this curvilinear relationship, Lyons-Ruth and her colleagues proposed that extremely low scores on the CES-D may reflect a rigid, depression-denying maternal style in distressed mothers. Although this is an interesting interpretation, acceptance of this position must await further empirical validation.

In one of the first studies of school-aged children, Hammen and her colleagues (Hammen et al., 1986) examined the mother-child

interactions among mothers suffering from recurrent unipolar depression, mothers with a bipolar affective disorder, chronically medically ill mothers, and normal mothers. These investigators examined the extent to which these mothers provided a stress-buffering role for their children. They hypothesized that maternal stress and depression would attenuate the mother's ability to provide positive interactions with the child, and that this in turn would be associated with negativistic cognitions in the child.

Mothers and their children (aged 8-16) completed a variety of measures and were observed in a puzzle-solving and a conflict-resolution task. Children of unipolar depressed mothers displayed the most negative cognitions, and maternal mood was related to children's self-concept. However, the direct observation measures provided only modest support for the hypothesized role of maternal behavior in shaping child behavior and cognitions. The correlation between observed maternal negativity and child self-concept, for example, was significant, but low, and the correlation between observed maternal self-criticism and observed child self-criticism was nonsignificant. A strong relationship between observed maternal criticism and observed child criticism was found only in the more stressful conflict-resolution task. Hammen and her colleagues interpreted their findings as providing only modest evidence of a modeling effect, but indicating a strong effect of maternal blaming and criticism on children.

Hops and his colleagues (Hops et al. 1987; Biglan, Hops, & Sherman, in press) conducted home observations of clinically depressed mothers and their families. Compared to normal mothers, depressed

mothers emitted higher rates of dysphoric affect and lower rates of happy affect than did nondepressed mothers. Across groups mothers did not differ in their rates of caring behaviors towards their spouses or children. Hops et al. (1987) found that children of depressed mothers differed from children of normal mothers only in terms of displaying more irritated affect. Furthermore, such irritated affect was evident only in families where there was concomitant marital distress. Interestingly, conditional probability analyses revealed that maternal dysphoric behavior was effective in suppressing aggressive behavior in both spouses and children.

Considered collectively, these studies indicate that the relation between maternal depression and child adjustment is complex. These studies, using a wide array of methodological techniques (e.g., self-report, direct observation in both the laboratory and the home), suggest that the effects of depression on child adjustment may be mediated by impairments in the parenting of depressed women. It appears that when depressed, many women lack the resources to respond appropriately to their children's needs. Such depressed mothers behave in a more negative manner towards their children, and from a very early age the children, in turn, respond negatively to the mother's behavior. This pattern sets the scene for a self-maintaining system in which the mother and child have few positive interactions with one another. Thus, maternal affective disturbance may disrupt the pattern of mother-child interactions, limiting the child's repertoire of adaptive behaviors. This conceptualization has important implications, for it leads to the prediction that the development of appropriate child

behaviors will require more than the resumption of normal maternal behavior and that it may be necessary to intervene directly with the child.

The studies reported above have established a link between maternal depression and disturbed mother-child interactions. To examine the specificity of these effects to depression, investigators have included various control groups in order to rule out alternative explanations of the findings. Weissman et al. (1972) established that depressed mothers differed from community mothers in their reports of their parenting experiences and of their children's adjustment. Hammen and her colleagues (1986) examined a variety of control groups, including a group of medical patients, in order to determine whether the detrimental effects on children's self-esteem and cognitions could be attributed to the general effects of maternal stress rather than to maternal depression. Similarly, Susman et al. (1985) attempted to separate the effects of maternal depression from those of maternal abusiveness.

Despite the inclusion of these control groups, findings of investigations in this area are contradictory. Studies have not been consistent in demonstrating that observed effects are found only in depressed mothers and are not evident in other samples of psychiatrically disturbed women. Lyons-Ruth and her colleagues (1986) reported a link between maternal distress and mothers' interactions with their children; elevated levels of distress occurred in women with histories of various psychiatric disorders and was not confined to those mothers suffering from an affective disorder. In contrast,

Radke-Yarrow and her group found that diagnostic status rather than self-reported distress was a significant predictor of child status. These studies make clear that the general effects of psychological distress versus major depression should be examined by the inclusion of a nondepressed psychiatric patient control group. In addition, they highlight the need for assessment not only of diagnostic status, but also of severity of psychological disturbance.

In sum, there is a need for well-controlled studies of the interactions of depressed patients with their children in order to gain a better understanding of the nature of the parent-child interaction. Furthermore, the use of reliable observation systems is necessary to identify the patterns of behavior that contribute to both maternal depression and child maladjustment. Based on the results of previous research, it is predicted that in interaction with their children, depressed mothers, compared with nondepressed mothers, are less involved and demonstrate both a lack of affection and increased hostility. In turn, the children of depressed mothers are hypothesized to be more negative in their interactions with their mothers.

Children of Disturbed Parents

Given the evidence indicating disturbed interactions between depressed mothers and their children, it is important to consider the literature that has attempted to assess the adjustment of children of depressed parents. The study of the offspring of affectively disordered parents represents a relatively recent endeavor. The first studies of children of parents suffering from psychiatric disorder were conducted in an attempt to gain a better understanding of the etiology

of schizophrenia. These studies were based on the assumption that the most fruitful research strategy to attain this goal would be to target a group of young children at risk for schizophrenia by virtue of parental pathology, and to follow them longitudinally to chart the emergence of schizophrenic symptoms.

Early studies in this area compared children of schizophrenic parents with children of normal parents (e.g., Mednick & Schulsinger, 1968). However, the lack of psychiatric control groups precluded an assessment of the specificity of observed group differences to schizophrenia. As studies became more methodologically sophisticated, nonschizophrenic psychiatric control groups were included in the designs. Many investigations included control groups composed of children of depressed parents, and it is this research base that provided the first data on children of depressed parents.

Among the most notable large scale studies of children at risk for schizophrenia are the Stony Brook High Risk Project (Weintraub, Liebert & Neale, 1978; Weintraub, Prinz & Neale, 1975), the Massachusetts Mental Health Center Project (Cohler, Gallant, & Grunebaum, 1977; Cohler, Galdant, Grunebaum, & Kauffman, 1983), the Rochester Longitudinal Study (Sameroff & Zax, 1973; Sameroff, Seifer & Zax, 1982), and the University of Rochester Child and Family Study (Fisher, 1980; Fisher, Harder, Kokes, & Schwartzman, 1982). Contrary to the predictions of these investigators, the results of these projects consistently indicated that children of depressed parents did not differ from children of schizophrenic parents in terms of impairments in social and school adjustment (Weintraub et al. (1975), and behavior

Depressives' accounts of their own parenting behavior suggest that they lack many of the resources to be warm and consistent parents, and that they are more tense and ineffective with their children. Indeed, these self-reports have been corroborated by the results of a small number of observational studies of the children of depressed parents.

Despite the identification of adjustment problems in the offspring of depressed parents, many questions remain. First, there has been no study that has controlled for the effects of both parental emotional disorder and physical disability. Without the provision of such controls, one cannot rule out the alternate explanations that observed impairments in children's functioning represent the effects of either parental psychological distress or general family disruption factors, rather than maternal depression.

Second, from the studies reviewed above, many areas of overlap are evident between the children of unipolar and bipolar parents. Nevertheless, important differences between these groups are also evident. In very young children, more severe impairments have been noted in the children of bipolar parents (e.g., Radke-Yarrow et al., 1985). School-aged children of unipolar parents have been found to be more impaired than were children of bipolar parents (e.g., Hammen et al., 1986). It may be that the nature of parental disturbance interacts with the child's developmental stage in affecting the child's adjustment. There is sufficient evidence to establish that, despite some similarities, children of unipolar and children of bipolar parents cannot be considered equivalent, and must be studied as distinct groups.

their own depressive symptoms, parents in the remitted group continued to report more dysfunction in their children than did the control parents. As expected, the nonremitted depressed group reported the highest incidence of dysfunction in their children. These families also reported a greater number of stressors and conflict, and less cohesion and expressiveness than did the remitted families. This pattern of results is consistent with those of the interpersonal studies mentioned earlier in suggesting that it may not be the depressive symptomatology per se through which the depressed parents adversely affect their children.

In a similar study, Weissman et al. (1984) obtained parental reports on 107 children of parents with major unipolar depression, and on 87 children of nondepressed parents. Based on the parents' reports, a greater number of children of depressed than of nondepressed parents were found to have psychiatric symptoms, to meet DSM-III diagnostic criteria, and to have received psychiatric treatment. Furthermore, children with two psychiatrically disturbed parents were found to be at greater risk for a diagnosis of a psychiatric disorder than were children with only one disturbed parent.

The finding that depressed people tend to perceive their children as having problems is consistent with the high-risk studies' findings of vulnerability in the children of affectively disordered parents. It is important to note here that these investigations have relied on the perceptions of depressed patients, rather than on direct assessments of the children. As noted earlier, depressed parents' reports may be biased by a tendency to see both their parenting and their children's

behavior in a negative light (Gotlib, 1983). Consequently, it is important to consider studies that have assessed the functioning of children of depressed parents in a more direct manner. In one of the first direct studies of the children of depressed parents, Welner, Welner, McCrary, and Leonard (1977) compared children of 29 hospitalized depressed parents (25 mothers, 4 fathers) with children of 41 nonpatient, nondepressed parents. On the basis of interviews with the mothers and children, Welner et al. reported that the children of the depressed parents had more depressed mood, death wishes, frequent fighting, unexplained headaches, loss of interest in usual activities, hypochondriacal concerns, crying for no apparent reason, and more disturbed classroom behavior. In fact, the eight children in the study who were diagnosed as depressed all came from the depressed-parent families. In contrast, none of the control children met diagnostic criteria for depression.

Expanding on an earlier study, Cytryn, McKnew, Bartko, Lamour, and Hamovitt (1982) assessed children of 13 bipolar depressed parents and of 13 nonpsychiatric parents. Cytryn et al. reported that nine of the families with a depressed parent had at least one child who met DSM-III criteria for a Major Affective Disorder, compared with only three control families who had a child who met these criteria.

Hirsch, Moos, and Reischl (1985) examined a group of adolescent children of unipolar depressed parents, and compared them to both a community group and to a group of adolescent offspring of arthritic patients. Hirsch et al. found that although the children of depressed parents reported more symptoms than did the normal group, there were no

significant differences between the children of the depressed patients and the children of the arthritic patients. However, these authors failed to provide information concerning the psychological adjustment of the arthritic parents. In a recent review, Anderson, Bradley, Young, McDaniel, and Wise (1985) noted a high incidence of reactive depression in rheumatoid arthritis patients. Without diagnostic information, the possibility that the lack of differences between the children of depressed and arthritic parents was attributable to depression in the arthritic parents cannot be ruled out.

Decina et al. (1983) interviewed children of bipolar depressed parents and offspring of nonpsychiatric controls. They found that whereas 16 of 31 proband children received a psychiatric diagnosis, only one of the 18 children of nonpsychiatric controls received a diagnosis. More specifically, eight of the 16 diagnosed children were rated as having major or minor depressive disorders, while the remaining eight children displayed a variety of diagnoses (e.g., anxiety, conduct disorders). Decina et al. also reported that seven of the 15 proband children who did not receive a psychiatric diagnosis shared a variety of characteristics indicative of a psychiatric disorder, but too minimal to be formally diagnosed (e.g., excitability, disturbances in interpersonal functioning with overdependency).

Consistent with these findings, Klein and his colleagues (Klein, Depue, & Krauss, 1986; Klein, Depue, & Slater, 1985, 1986) also reported a high incidence of affective disorders in the offspring of bipolar depressed patients, compared with the children of patients with

a non-affective psychiatric disorder. Interestingly, the two groups of children showed comparable rates for non-affective diagnoses.

Hammen et al. (1987) found that children of unipolar depressed and bipolar depressed mothers had high rates of psychiatric diagnoses compared to children of normal mothers. Although children of medical patient mothers had moderate rates of psychiatric diagnosis these were lower than the rates in children of affectively disordered parents. No gender differences in rates of diagnosis were found. Hammen and her colleagues assessed the impact of maternal stressors on child diagnostic status by covarying stresses in domains such as marital, social, financial, occupational, and physical health. Interestingly, using these covariates, group differences were attenuated.

Although these studies indicate that the children of depressives are at particular risk for developing affective disorders, they do not address the process by which this vulnerability develops. To gain a better understanding of the nature of the relationship between depressed parents and their offspring, it is necessary to conduct direct observations of the interactions between depressed parents and their children.

A number of investigations have been carried out assessing the infant sons of seven bipolar depressed parents who were part of a larger study (e.g., Gaensbauer, Harmon, Cytryn, & McKnew, 1984). Based on observations of these children in a semi-structured environment, Zahn-Waxler and her colleagues (Zahn-Waxler, Cummings, McKnew, & Radke-Yarrow, 1984; Zahn-Waxler, McKnew, Cummings, Davenport, & Radke-Yarrow,

1984) reported that by the age of two years, these children, compared with the children of normal control parents, demonstrated impairments in affect regulation, altruism, and aggressive and affiliative interactions. These direct observations suggest, then, that from a very early age, impairments are evident in the children of bipolar depressed parents. The parents' disturbed behaviors are likely to provide poor models of affect regulation, and to hinder the attachment process.

In a related study, Zahn-Waxler, Cummings, Ianotti, and Radke-Yarrow (1984) assessed a sample of children of unipolar parents. Compared to their counterparts with bipolar parents, this group appeared less intensely upset by stressful situations. Interestingly, these children were also less likely to engage in acts of aggression, and were more likely to engage in sociable play than were children of normal parents. Finally, compared to normal controls, the children of the depressed parents appeared to be more adversely affected by simulated adult fighting. Zahn-Waxler et al. concluded that children with a unipolar depressed mother were "...especially sensitive to issues regarding physical and psychological harm that might befall another person" (p. 97). Although there were similarities between children of unipolar and bipolar parents, the former appeared less distressed and were judged to be more affectively controlled than the latter.

Taken together, these investigations suggest that both the family relationships and the adjustment of the children of depressed patients are less favorable than are those of nonpsychiatric individuals.

Depressives' accounts of their own parenting behavior suggest that they lack many of the resources to be warm and consistent parents, and that they are more tense and ineffective with their children. Indeed, these self-reports have been corroborated by the results of a small number of observational studies of the children of depressed parents.

Despite the identification of adjustment problems in the offspring of depressed parents, many questions remain. First, there has been no study that has controlled for the effects of both parental emotional disorder and physical disability. Without the provision of such controls, one cannot rule out the alternate explanations that observed impairments in children's functioning represent the effects of either parental psychological distress or general family disruption factors, rather than maternal depression.

Second, from the studies reviewed above, many areas of overlap are evident between the children of unipolar and bipolar parents. Nevertheless, important differences between these groups are also evident. In very young children, more severe impairments have been noted in the children of bipolar parents (e.g., Radke-Yarrow et al., 1985). School-aged children of unipolar parents have been found to be more impaired than were children of bipolar parents (e.g., Hammen et al., 1986). It may be that the nature of parental disturbance interacts with the child's developmental stage in affecting the child's adjustment. There is sufficient evidence to establish that, despite some similarities, children of unipolar and children of bipolar parents cannot be considered equivalent, and must be studied as distinct groups.

Characteristics of Parents of Problem Children

Having established that depressed people report difficulties in their roles as parents, and that children of depressed parents evidence a variety of adjustment difficulties, it is clear that further examination of the parent-child relationship is warranted. The research reviewed to this point has been drawn from the adult psychopathology literature. Dysfunctional parent-child relationships can also be approached from the vantage point of the literature concerning child psychopathology. A review of pertinent studies of disturbed children provides an important bridge to the study of parent-child relations.

In recent years, researchers and clinicians have become more cognizant of reciprocal influences between people, and of the necessity to consider problematic behaviour within a social context (e.g., Gotlib & Colby, 1987; Mash & Terdal, in press). This is particularly evident in the study of parenting, in which the reciprocal influences of children and adults have been emphasized (e.g., Belsky, 1984; Mash, 1984; Pannacione & Wahler, 1986).

Within this framework, researchers have assessed characteristics of parents of children with diverse problems. Attempts have been made to examine and understand the parenting stress associated with having a child with such problems as physical handicap (Breslau & Davis, 1986; Kazak, 1987), hyperactivity (Befera & Barkley, 1985; Mash & Johnston, 1983), and conduct disorder (Forehand, Brody, & Smith, 1986; Webster-Stratton, 1985). Similarly, attempts have been made to identify parenting styles that may contribute to children's problems of

aggression (Patterson, 1982), depression (Cole & Rehm, 1986; Hammen et al., 1986; Kaslow, Rehm, Pollock, & Siegel, 1984), and hyperactivity (Befera & Barkley, 1985). In the interests of brevity, only illustrative studies from this large literature will be highlighted.

The advent of behavioral parent training to deal with children's behavior problems spawned interest in the adjustment of parents of disturbed children. Parents' adjustment was recognized as an important factor in determining adherence to intervention programs. McMahon, Forehand, Griest and Wells (1981), for example, observed that mothers who failed to complete a course of parent training evidenced higher levels of self-reported depression than did mothers who successfully completed the program. Webster-Stratton (1985), on the other hand, reported that maternal depression did not add to the prediction of treatment response or nonresponse. She reported a significant correlation between maternal depression and maternal SES, and argued that it was SES rather than depression that successfully predicted treatment outcome.

A number of subsequent studies have attempted to unravel the relationship between maternal depression and child behavior problems. Several researchers have explored the relation between maternal depression and negative perceptions of the child, but the results have been contradictory. For example, whereas Forehand and Brody (1985) found a significant correlation between these two variables, Schaughency and Lahey (1985) reported that mothers' scores on the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) were not related to mothers' reports of child behavior. Forehand

and Furey (1985) had mothers of clinic children keep diaries concerning their daily events and moods, and found their scores on the Depression Adjective Checklist (DACL; Lubin, 1965) were more affected by the positivity and negativity of their daily activities than they were by the behaviors of either their spouse or their child.

The contradictory nature of these findings can be attributed to both methodological and conceptual issues that require further attention. Studies in this area have been troubled by a lack of clarity in the definition of maternal depression. Typically, studies providing support for the relation between maternal depression and child adjustment difficulties have reported BDI scores in the moderately depressed range (e.g., Forehand & Brody, 1985; McMahon et al., 1981), whereas nonsignificant findings have been found in studies reporting scores in the mild (Webster-Stratton, 1985), or nondepressed (Schaughency & Lahey, 1985) ranges. This pattern of findings raises the issue of the appropriateness of using the term "maternal depression" to describe a sample whose mean BDI score is clearly in the nondepressed range. Furthermore, this pattern of results also suggests that there may be a threshold below which maternal depression does not exert an influence on child functioning, maternal perceptions, or maternal behavior towards the child.

A second issue relates to the lack of concordance in information obtained from different informants or using different instruments. Many investigators have interpreted lack of concordance between raters as evidence for maternal misperception of child behavior, or as reflecting low maternal thresholds for child problems. It is important

to note that lack of concordance may also reflect differing contextual demands on the child, or the difference between micro-analytic and trait-like measures (Achenbach, McConaughy, & Howell, 1987; Webster-Stratton, 1985).

Thirdly, maternal depression is only one of a range of parental characteristics that have received scrutiny. Marital discord (Emery, 1982), divorce (Emery, Hetherington, & Dilalla, 1984), and insularity (Dumas, 1986; Dumas & Wahler, 1985) have all been implicated in child adjustment difficulties. Researchers have proposed that no single factor is primary, and that both maternal and child adjustment reflect the interplay of many important variables.

The Present Study

The foregoing literature review has established that depressed mothers view their parenting and their children's adjustment unfavorably. Furthermore, studies have indicated that children of depressed parents are at risk for a number of adjustment difficulties. Finally, parental affective states have been associated with a variety of child problems. Considered collectively, these studies appear to provide persuasive evidence of a link between parental depression and child difficulties.

However, methodological difficulties leave the existing data open to a number of alternative explanations. The first major area of concern involves the use of the label "depression". Studies relating maternal adjustment to parenting and to child adjustment have used the term "depression" to refer not only to clinically depressed women, but also to refer to women with scores in the mildly depressed range on

self-report depression measures. It is unclear whether one can extrapolate from mild, subclinical disturbance, to make useful statements about the nature of diagnosable depressive disorder (Coyne & Gotlib, 1983). In order to separate the disruptive effects of distress from those of clinical depression, it is important that mothers be assessed both in terms of their depressive symptomatology, and in terms of their diagnostic status. Furthermore, because differences have been found among various types of depression (e.g., unipolar versus bipolar), it is important that a homogeneous subject group be selected for study.

Related to this point, research to date has not fully addressed the specificity to depression of observed child adjustment difficulties. It is unclear whether child problems are associated with a range of parental psychological disorders, or whether child problems can be linked with parental problems in general, including physical disorders. Furthermore, it is important that investigators recognize the possible contributions and interactions of such variables as marital status, socio-economic status, and overall levels of distress to the understanding of mother-child interaction.

Secondly, extant studies addressing the issue of the stability or transience of disturbed mother-child interactions and adjustment difficulties yield contradictory findings. Coyne's (1976) conceptualization of depression contends that negative responses to the depressed person are maintained by demonstrations of depressive symptomatology. This model predicts that an amelioration of depressive symptomatology would be associated with a resumption of normal

interaction.. Consistent with these predictions, Weissman (1983) reported improvements in the behavior of adolescent children following the alleviation of their mothers' depression. Similarly, Susman et al. (1985) found that previously-depressed mothers endorsed child-rearing values comparable to those endorsed by mothers who had never been depressed. However, Susman et al.'s study did not address the adjustment of the children in question. Furthermore, Coyne's model was developed to explain the interactions of depressed adults with other adults, and it is unclear whether such patterns also characterize the interactions of depressed women with their young children. It may be that depression in the mother interferes with the young child's mastery of developmentally salient tasks, and therefore alleviation of maternal symptomatology may not be sufficient to remedy the young child's difficulties. Weissman and Paykel (1974), for example, noted residual mother-child difficulties following symptomatic improvement of the mother. Billings and Moos (1986) similarly found that remitted parents continued to rate their children as having problems. Finally, Keitner, Miller, Epstein, Bishop, and Fruzetti (1987) found that although family functioning was improved when parents were no longer depressed, these families remained at a level of functioning below that of families without a depressed parent. It is important to determine the stability of the relation between maternal depression and child adjustment in order to establish whether observed child difficulties represent a transient reaction to maternal symptomatology, or reflect more enduring patterns of adjustment that are evident even when the acute depressive symptomatology is alleviated.

Finally, reliance on a single source of information has provided only limited information concerning parenting and child adjustment. Depressed mothers have described their parenting in unfavorable terms (e.g., Bromet & Cornely, 1984, Weissman & Paykel, 1974). Reports by depressed women, however, may reflect a negative response bias, rather than indicating a veridical perception of themselves as impaired parents and of their children as disturbed. Reliance on clinician or observer ratings is similarly open to bias, unless such ratings are conducted blind to the mother's diagnostic status. Therefore, a full assessment necessitates obtaining ratings from multiple sources, including mothers, children, clinicians, and external observers. Children's perceptions of their mother's positivity and negativity, too, could provide important information regarding maternal behaviours.

The present study was designed to address these issues by examining patterns of mother-child interaction and adjustment in families in which the mother is diagnosed as suffering from a nonpsychotic, unipolar depression. Three major questions were examined. First, the specificity to depression of observed and reported patterns of interaction and adjustment was assessed by examining these variables in groups of depressed psychiatric patient mothers, nondepressed psychiatric patient mothers, nondepressed medical patient mothers, and nondepressed community mothers. The inclusion of these control groups permitted an evaluation of the "depression-specificity" hypothesis, the "psychological distress" hypothesis, and the "general disability" hypothesis. The depression-specificity hypothesis (e.g., Beardslee et al., 1983) predicted that maternal

depression would be related to children's adjustment difficulties and to impaired mother-child interactions. The psychological distress hypothesis (e.g., Gotlib, 1982; Lyons-Ruth et al., 1986) predicted that child difficulties and dysfunctional mother-child interaction would be related to maternal psychopathology and psychological distress in general. Finally, the general disability hypothesis (e.g., Hirsch et al., 1985) predicted that child problems and poor mother-child interactions would be associated with maternal physical and psychological disorder.

Second, to assess the stability of the relation between maternal depressive symptomatology and mother-child interaction patterns and child adjustment, two complete evaluations were conducted for each dyad: the first, early in the patient's treatment, and the second, six to eight weeks later. By conducting two complete assessments, both the "acute impairment" hypothesis and the "prolonged impairment" hypothesis could be evaluated. The acute impairment hypothesis (e.g., Susman et al., 1985; Weissman, 1983) predicted that an alleviation in maternal depressive symptomatology would be associated with a resumption of normal child functioning and mother-child interaction. The prolonged impairment hypothesis (e.g., Keitner et al., 1987) predicted that even when mothers were symptomatically improved there would be residual difficulties in child adjustment and in mother-child interaction.

Third, to determine whether reports of difficulties were due to maternal negative response set or to accurate perceptions, information on maternal adjustment, child adjustment, and mother-child interaction was obtained using multiple measures completed by multiple informants.

The "negative response set" hypothesis (e.g., Forehand & Brody, 1985) predicted that mothers would evaluate themselves and their children negatively, and that blind ratings by clinicians would fail to corroborate their impressions. In contrast, the "child vulnerability" hypothesis (e.g., Hammen et al., 1986) predicted that clinicians would identify adjustment problems in children of disturbed mothers. Similarly, in considering mother-child interaction, the "impaired parenting" hypothesis (e.g., Weissman & Paykel, 1974) predicted that children of depressed women would describe their mothers as being negative and that in interaction with their children depressed women would be observed to be more critical and less involved than other women; the "difficult child" hypothesis (e.g., Mash & Johnston, 1983) predicted that children of depressed mothers would be observed to be more negative than other children.

Hypotheses

The following dependent variables were assessed in the study: a) the nature of maternal functioning, including symptomatology, social functioning, and the child's perceptions of usual maternal behavior; b) the nature of child adjustment, including internalizing problems (particularly depression), externalizing problems, social competence, and overall adjustment; and c) the nature of the mother-child interaction, in terms of the amount of joint activity, and the positivity and negativity of their interactions. Each of these variables was considered with respect to the specificity of observed effects to depression, the stability of observed effects over the course of time (i.e., whether interaction patterns and child adjustment

were similar when the mother was symptomatic or asymptomatic), and the consistency among different raters.

1. Specificity to depression. In order to assess the specificity of child adjustment problems or dysfunctional interaction patterns to clinical depression, groups of depressed psychiatric patients, nondepressed psychiatric patients, nondepressed medical patients, and nondepressed, nonmedical community controls were examined in the present study. The depression specificity hypothesis predicted that child adjustment problems and dysfunctional interactions would be demonstrated only by depressed patients and their children, and that the other three groups would not differ from one another. In contrast, the psychological distress hypothesis predicted that the two psychiatric groups would not differ from one another with respect to these measures, and that both would perform more poorly than the two nonpsychiatric control groups. Finally, the general disability hypothesis predicted that child problems and disturbed interaction patterns would be associated with having a parent whose functioning was impaired. This hypothesis would be supported if all three patient groups demonstrated troubled interactions and child difficulties.

2. Longitudinal changes. In order to assess the stability of observed effects this study involved two assessments, one early in the mother's treatment and the second six to eight weeks later. The acute impairment hypothesis predicted changes both in children's overall adjustment and in mother-child interactions, as a function of the severity of maternal depressive symptomatology. Specifically, it predicted that child adjustment difficulties and dysfunctional mother-

child interaction patterns observed at session one, would no longer be evident at session two when the mother was symptomatically improved. The prolonged impairment hypothesis predicted that child adjustment problems and disturbed mother-child interaction patterns would endure, even when the mother was symptomatically improved. Thus, despite some amelioration in functioning, residual impairment would be evident and these mothers and children would continue to function at a level below that of their counterparts.

3. Concordance among informants. To determine whether child adjustment difficulties and impaired interactions were a function of a maternal negative response set associated with depression, information was obtained from multiple sources. The maternal negative response set hypothesis predicted that children of depressed mothers would not differ from children of mothers in the other groups in terms of ratings their mothers, that depressed mothers would perceive their children as being more negative than would blind clinicians, and that observers would find no differences between the interactions of depressed mothers and children and the interactions of mothers and children in the other three groups. In contrast, the impaired parenting hypothesis predicted that children of depressed mothers would rate their mothers more negatively than would children from the other three groups, and that depressed mothers would be observed to have poorer interactions with their children.

In considering depressed mothers' parenting, two types of difficulties were addressed. First, there have been suggestions in the literature that depression involves a tendency to be self-focused

(Ingram et al., 1987; Lewinsohn et al., 1985; Smith & Greenberg, 1981). Maternal self-focus could be associated with a lack of involvement with children. The "self-focus" hypothesis would be supported if depressed mothers were observed to spend less time interacting with their children. Second, depression has been associated with a tendency to view oneself and one's environment negatively. This could be associated with maternal hostility towards her child. The "maternal negativity" hypothesis predicted that mother-child interactions would be characterized by increased negative behavior and decreased positive behavior.

Finally, with respect to the children's functioning and behavior, the child vulnerability hypothesis predicted that children of depressed mothers would be rated by both mothers and clinicians as experiencing difficulties. In addition, the difficult child hypothesis predicted that children of depressed mothers would be observed to be more negative and less positive in interactions with their mothers than would children in the other three groups.

Method

Subject Selection

The subject sample in this study consisted of 75 mother-child dyads. Each child was between the ages of 7 and 13, and each mother was the child's biological parent. Four groups of dyads were formed: (a) dyads in which the mother was currently receiving outpatient psychiatric treatment for major depression; (b) dyads in which the mother was currently receiving outpatient treatment for a psychiatric disorder other than depression; (c) dyads in which the mother was currently receiving outpatient treatment for a medical condition; and (d) dyads in the community in which the mother was not receiving outpatient treatment for either emotional or physical problems. Families in the three outpatient groups were recruited through various treatment facilities in the London area, including St. Joseph's Hospital, University Hospital, London Psychiatric Hospital, and Family Service London. In order to ensure a heterogeneous sample, the community control mothers and children were recruited via local newspaper advertisements requesting participation in a study of family interaction, through direct solicitation at the children's library, and by letters sent to parents of children attending the University Preschool requesting participation in the study.

In order for a mother-child dyad to be considered for inclusion in the study, they had to have lived together for at least one year. In addition, mothers were excluded from the study if they demonstrated evidence of alcoholism, psychotic ideation, or brain damage. With the exception of the medical patient group, mothers were also excluded from

the study if they were suffering from a chronic illness. Finally, the youngest child in the family whose age was between 7 and 13 was selected for participation in the study. Although it was decided that children would be excluded from the study if they were mentally retarded, no children had to be excluded because of this criterion.

Given the particular interest in assessing the relation between maternal depression and child adjustment, and the nature of this relation when mothers were no longer symptomatic, mother-child dyads were also excluded from the study if they were currently involved in a behavioral-parent training program. This decision was made in order to avoid a confounding of the alleviation of maternal symptomatology with the development of enhanced child management skills.

Measures

The measures used in the present study included interview schedules, self-report questionnaires, and observational coding schemes. Measures used to assess maternal functioning, child functioning, and mother-child interaction are discussed in turn. Copies of all measures are presented in the appendices.

Maternal functioning. A number of studies have demonstrated that there is often a low degree of concordance between clinical ratings and self-report measures of depression (Lambert, Hatch, Kingston, & Edwards, 1986; Oliver & Simmons, 1984; Paykel, Prusoff, Klerman, & DiMascio, 1973). In the current study, therefore, subjects' depression was assessed on the basis of multiple measures. Group assignment for the psychiatric patients was based on a DSM-III diagnosis of depression, and on scores on the Hamilton Rating Scale for Depression

(HRSD; Hamilton, 1960). The HRSD is a clinician-rated measure consisting of 17 items chosen to reflect the presence and severity of depression. During a structured interview with the patient, the clinician scores each item on a 0-2 or 0-4 scale. The sum of these ratings is used as a score of global severity of the depressive symptoms. Both the inter-rater reliability (Bech, Gram, Dein, Jacobsen, Witger, & Bolwig, 1975) and the criterion validity (Carroll, Fielding, & Blashki, 1973) of the HRSD have been demonstrated to be acceptable. The HRSD is presented in Appendix A.

A psychiatric outpatient was classified as depressed if she (a) met DSM-III criteria for a diagnosis of Major Depressive Episode or Dysthymic Disorder, and (b) evidenced moderate to severe levels of depression, defined as a minimum score of 14 on the HRSD. Patients with a previous manic episode were not included in the study.

A psychiatric outpatient was classified as nondepressed if she (a) had no history of previous psychiatric treatment for depression, (b) failed to meet DSM-III criteria for a diagnosis of Affective Disorder, and (c) obtained scores of 10 or less on the HRSD. As outlined previously, any evidence of psychosis precluded a psychiatric patient's participation in this study. The majority of the nondepressed psychiatric outpatients were diagnosed as manifesting symptoms of anxiety disorder, personality disorder, and adjustment disorder (without depressed mood). Criteria for inclusion in the study for the medical outpatient subjects included (a) no reported current or past treatment for a psychiatric disorder, and (b) an HRSD score of 10 or

less, and c) failure to meet DSM-III criteria for a diagnosis of Affective Disorder.

In order to assess the severity of the mother's psychopathology, all patients were also assessed on the Global Assessment Scale (GAS; Endicott, Spitzer, Fleiss, & Cohen, 1976). The GAS consists of a clinician's rating of the patient's overall functioning during the previous week, on a continuum of psychological health. The scale values range from 1, representing the hypothetically sickest individual, to 100, the hypothetically healthiest. The rater selects the lowest score that describes the subject's functioning during the preceding week. This rating is based on functioning and symptomatology, and does not take into account such factors as diagnosis or prognosis. Behaviorally-oriented descriptors are provided as scale anchors. Endicott et al. report inter-rater reliabilities ranging from .69 to .91, and present data that indicate that the GAS may be useful in identifying former psychiatric inpatients who are at high risk for readmission. The GAS is presented in Appendix B.

To assess maternal perceptions of their psychological adjustment and level of distress, all mothers completed the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the Brief Symptom Inventory (BSI), an abbreviated version of the Symptom Checklist 90 - Revised (SCL-90; Derogatis, Lipman, & Covi, 1973; Derogatis, Rickels, & Rock, 1976).

The BDI is a 21-item self-report measure of depth or intensity of depression, with the total BDI score representing a combination of the number of symptom categories endorsed and the severity of the

particular symptoms. The BDI possesses high internal consistency (alpha coefficient of .85) and discriminant validity (e.g., Bech, Gram, Dein, Jacobsen, Vitger, & Bolwig, 1975; Clark, Cavanaugh, & Gibbons, 1983; Davies, Burrows, & Poynton, 1975; Schaefer et al., 1985), making it a particularly useful instrument for screening purposes (Beck & Beaumesderfer, 1974). The BDI is presented in Appendix C.

The BSI is a symptom self-report inventory composed of 53 items. Each item is rated on a 5-point scale of distress, with the sum yielding a Global Severity Index. Internal consistency coefficients range from .77 to .90, and test-retest reliabilities range from .78 to .90 (Derogatis et al., 1976). The original instrument, the SCL-90 has been used to assess current psychiatric symptomatology in diverse-subject samples, including psychiatric patients (Merikangas, Bromet, & Spiker, 1983), opiate addicts (Rounsaville, Weissman, Crits-Cristoph, Wilber, & Kleber, 1982), and university students (Gotlib, 1984). The SCL-90 has been demonstrated to possess high reliability and validity (Derogatis et al., 1976; Dinning & Evans, 1977). Finally, Derogatis et al. (1976) report high correlations between the BSI and the SCL-90 (.92 to .98 for the symptom subscales). The BSI is presented in Appendix D.

To assess maternal social functioning, all mothers completed both the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983), and the Health and Daily Living Form B (HDL; Moos, Cronkite, Billings, & Finney, 1983). The PSS is a 14-item instrument, designed to assess appraisals of the degree to which one's current life situation is unpredictable, uncontrollable, and burdensome. Essentially, the PSS is designed to measure perceived levels of global stress. Cohen et al.

report data indicating that the PSS possesses high internal consistency. Test-retest reliabilities were high for brief intervals, and moderate for six-week intervals. Because the PSS was used in the present study to assess perceived stress over the past month, such a pattern of test-retest reliability is considered appropriate. The PSS is presented in Appendix E.

The HDL is an extensive self-report instrument assessing a variety of areas of adult functioning. Normative data from the HDL were obtained from samples of 434 depressed persons seeking treatment at a psychiatric facility and 424 community adults who served as a comparison group (Moos et al., 1983). The present study employed sub-scales of the HDL that are theoretically relevant to depression, including indices of social functioning and resources (e.g., social activities with friends, number of network contacts, number and quality of close relationships), and indices of family activities and family arguments. With the exception of the network contacts scale, for which only modest alpha coefficients were obtained (.48 and .51), Moos et al. reported acceptable internal consistency for the selected subscales (alpha coefficients ranging from .67 to .84). The HDL sub-scales are presented in Appendix F.

Finally, to provide a measure of children's ratings of maternal behavior, all children completed the Parent Perception Inventory (PPI; Hazzard, Christensen, & Margolin, 1983). The PPI is designed to assess children's perception of parental behavior. The PPI is administered by reading descriptions of each behavior class and having the child respond by circling a phrase on a five-point scale. For each child,

mother-positive and mother-negative scores are derived. Hazzard et al. obtained Cronbach's alpha coefficients of .78 for mother-positive, and .84 for mother-negative scores. These authors also reported preliminary data supporting the convergent and discriminant validity of the PPI. The PPI is presented in Appendix G.

Child functioning. In recent years there has been an increasing recognition that important information concerning child adjustment can be gleaned from different sources (e.g., Kazdin, French, & Unis, 1983; Shoemaker, Erickson, & Finch, 1986). Consequently, in this study child functioning was assessed by means of a semi-structured clinical interview, maternal report, and child self-report.

Children were interviewed using a semi-structured protocol designed for the clinical assessment of children. Two major factors were considered in selecting from among the four major child interviews available (viz., the Schedule for Affective Disorders and Depression for School Age Children [Kiddie-SADS; Puig-Antich, & Chambers, 1978]; the Interview Schedule for Children [ISC; Kovacs, 1983]; the Diagnostic Interview for Children and Adolescents [DICA; Herjanic, Herjanic & Brown, 1975]; and the Child Assessment Schedule [CAS; Hodges, 1983]). First, it was necessary to select an instrument that yields clinically relevant information on children's functioning. Second, because the sample included young, non-clinic children, it was considered necessary to promote rapport and to avoid an interview that was lengthy, difficult to understand, or unnecessarily pathology-focused. Bearing these considerations in mind, the Child Assessment Schedule was selected.

The CAS was developed and modified from an interview protocol designed by McKnew, Cytryn, Efron, Gershon, and Bunney, (1979). The CAS was designed to be administered to children seven years and older. It consists of two parts. In the first part, the interviewer records the child's responses to a set of approximately 75 questions assessing the child's functioning in different domains. The format is designed so that a positive score for an item indicates the presence of a problem or symptom. The interview is designed to facilitate rapport with the child, and progresses from less threatening topics such as school, hobbies, friends and family, to more symptom-focused questions about fears and anxieties, worries and concerns, self-image, mood disturbance, physical complaints, and conduct disorder. In the second part of the CAS, the interviewer records his/her observations of the child on a number of scales, including grooming, activity level (including attention span and impulsivity), quality of rapport, emotional expression, cognitive functioning, and the quality of interpersonal interaction with the interviewer.

The questions and observations of the CAS were designed to address diagnostic criteria for DSM-III disorders. The interview takes approximately 45 minutes to administer, and yields an overall disturbance score, scores on 11 subscales, and a DSM-III diagnosis.

Because the CAS is still in its development stages, the reliability and validity data must be considered preliminary. Nevertheless, Hodges and her colleagues (Hodges, McKnew, Cytryn, Stern & Kline, 1982; Hodges, Kline, Stern, Cytryn & Mcknew, 1982) have reported promising initial results. Inter-rater reliability was

assessed using both highly-skilled and novice interviewers. Percentage agreement on subscale scores ranged from .86 to .92 (Hodges, McKnew et al., 1982), and kappa coefficient reliabilities of .47 to .61 were obtained (Hodges, Kline, et al., 1982). Interviewers in the present study were psychology graduates with several years of experience in research with children. To determine inter-rater reliability in the present study, audiotapes of a subset of the interviews were coded by a clinical psychology doctoral student. Kappa coefficients calculated on the total symptom scores for each subscale of the CAS ranged from .96 to 1.00, indicating a high degree of reliability between raters.

The CAS has demonstrated adequate content validity, in that the items relate directly to DSM-III criteria. However, it is difficult to determine the standard against which criterion validity can be established (Flanery, 1984). In determining the criterion validity of a self-report measure, it is common to adopt a criterion such as diagnosis based on clinical interview. In assessing the validity of a structured clinical interview, it is problematic to use diagnosis based on unstructured clinical interview as the yardstick by which to assess validity. One solution to the problem of choosing a valid criterion is to compare scores in known groups. Hodges et al. (1982) adopted this procedure and compared inpatient, outpatient, and community childrens' scores on the CAS. Significant differences were found between groups for 9 of the 11 content areas. A discriminant function analysis revealed that the CAS was comparable to the Child Behavior Checklist (CBCL; Achenbach, 1978, Achenbach & Edelbrock, 1979), in terms of accuracy of assigning children to groups. Similarly, in a recent

report Turner, Beidel, and Costello, (1987) found that the CAS successfully discriminated between children of anxiety disordered patrents and children of nondisordered parents. Hodges et al. (1982) provided evidence for the convergent validity of the instrument by demonstrating concordance between CAS scores and other widely used child pathology measures. Scores on CAS subscales corresponded with maternal measures of child disturbance, as well as with child self-report measures. The CAS answer sheet used in this study is presented in Appendix H.

Following administration of the CAS, children were assessed on the Global Assessment Scale for Children (GAS-C; Sorrells, & Rothman, & Heldman, 1976). The GAS-C is a downward extension of the adult GAS, designed by Endicott et al. (1976). Like the adult version, the GAS-C requires an interviewer to rate the child on a scale from 1 to 100, with a score of 1 representing the hypothetically most impaired child who requires constant supervision, and 100 representing a child whose functioning is generally good and is superior in many areas. Descriptive paragraphs are provided as anchors for each ten-point range. Sorensen, Hargreaves, and Friedlander (1982) reported inter-rater reliabilities for out-patient samples ranging from .69 to .84. In addition, the GAS-C discriminated between inpatient, outpatient and community children. The GAS-C is presented in Appendix I.

The Children's Depression Inventory (CDI; Kovacs, 1981) was used to obtain both child and maternal ratings of the child's depressive symptomatology. The CDI is patterned after the Beck Depression Inventory, and is the most widely used self-report measure for

childhood depression (Costello, 1986). The CDI consists of 27 items covering an array of symptoms of childhood depression such as sadness, anhedonia, suicidal ideation, and sleep and appetite disturbance. Each item is graded on a three-point scale reflecting the absence, presence and frequency of occurrence of particular symptoms. Thus the CDI total scores range from 0 to 54. The CDI has been administered to children ages 7 to 17, including both clinical (e.g., Kazdin, Colbus, & Rodgers, 1986; Marriage, Fine, Moretti, & Haley, 1986; Norvell & Towle, 1986; Saylor, Finch, Baskin, Furey, & Kelly, 1984;) and normative samples (Lefkowitz & Tesiny, 1985; Shoemaker, Erickson, & Finch, 1986; Strauss, Forehand, Frame, & Smith, 1984). In addition, the CDI has been used to obtain parental ratings of child adjustment (e.g., Kazdin, French, Unis, & Esveldt-Dawson, 1983).

Because the current sample is composed of nonclinic children, psychometric data presented here are derived from nonclinic samples. Saylor, Finch, Spirito, and Bennett (1984) reported a one-week test-retest reliability coefficient of .38 for fifth and sixth grade school children. These authors report that in the same sample, the CDI yielded an alpha reliability coefficient of .94. Although Strauss et al. (1984) provided evidence of the construct validity of the CDI, their results cast doubt on the discriminant validity of this measure. These authors reported that although high CDI-scorers within a school sample had lower self-concepts, they were also more anxious, and were rated as doing less well academically than were low-scoring children. Concerns about the construct specificity of child self-report measures have prompted investigators to propose that measures such as the CDI,

provide an index of negative affectivity rather than a depression-specific score (e.g., Wolfe et al., 1987). Bearing these considerations in mind, the CDI was included as a measure of the child's subjective affect ratings. Because the CDI was completed by both children and mothers, both the child (CDI) and mother (MCDI) versions are presented in Appendix C.

Mothers also completed the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983). The CBCL contains 118 items, each scored on a scale of 0 to 2. Behavior problems are rated in terms of aptness in describing the child's behavior over the previous six months. The measure also includes three social competence scales assessing school performance and involvement in activities and social relationships. Data obtained from the CBCL are entered on the Child Behavior Profile (Achenbach 1978; Achenbach & Edelbrock, 1979), which yields scores on both narrow and broad band syndromes. Because the narrow band syndromes differ across age and gender, it was not possible to include these finer distinctions in the analyses, only the broad band classification of "Internalizing" and "Externalizing" was employed. These broad bands are reportedly robust and distinguish between fearful, inhibited, or over-controlled behavior, and aggressive, antisocial, or under-controlled behavior. The raw scores obtained from 1300 parents of normal children were used to compute normalized T-scores for each of the scales (Achenbach & Edelbrock 1983). The authors report three month test-retest reliabilities of .83 for the behavior problems, and .97 for social competence. Adequate construct validity has been indicated by moderate correlations between CBCL

scales and comparable measures of child adjustment. Criterion validity has been established by demonstrating that the CBCL accurately identifies children's referral status.

The CBCL was selected for use in this study for a number of reasons. First, the CBCL provides accurate information on children's social and behavioral characteristics, and can be administered in approximately twenty minutes. Second, the CBCL takes into account key demographic variables, such as age and gender, and permits identification of children needing professional help for maladaptive behavior. Finally, the use of the CBCL allowed an examination of changes in maternal perceptions of child adjustment as a function of changes in the mother's depressive symptomatology. The CBCL is presented in Appendix K.

Mother-child interaction. Direct observational data have made significant contributions to the understanding of distressed versus nondistressed families and couples (e.g., Birchler, Weiss, & Vincent, 1975; Jacob, Ritchey, Cvitkovic, & Blane, 1981), and of parent-child interactions (e.g., Robinson & Eyberg, 1981). In this study, two distinct types of interaction were recorded, namely, a play interaction and a discussion interaction. Due to the qualitative differences in the types of interaction, separate coding systems were used for the play and discussion interactions. A review of the literature revealed that none of the extant coding systems was designed specifically to study interactions between depressed mothers and their 7-11 year old children. In order to maximize both the reliability and validity of

the coding systems, currently available systems were modified to accommodate theoretically relevant observations.

Play. The measures used to assess the mothers' and children's verbal and nonverbal behaviors during the parent-child interactions were derived primarily from the Dyadic Parent-Child Interaction Coding System (DPICS; Robinson & Eyberg, 1981). The DPICS has been used in a number of studies assessing the interactions of clinic children and their parents (e.g., Koverola, Elliot-Faust, & Wolfe, 1984; Aragona & Eyberg, 1981), and has adequate reliability and validity. Importantly, the DPICS provides data concerning both verbal and nonverbal behaviors, which are recorded continuously and in sequence. The DPICS was modified for use in the present study in order to assess not only responsive behavior on the part of the child, but in addition, the child's initiation of contact with the parent and the child's provision of feedback to the parent. The definitions used for these additional child behavior codes were the same as those used for the adult codes for commands, praise, and criticism. Similarly, maternal responsiveness to child commands was assessed by including maternal codes equivalent to the child compliance and noncompliance codes. These mother and child codes were then collapsed into categories of positive, negative, and neutral behavior. Positive behaviors included Praise, Positive self-statements, Positive statements about the activity, and Positive physical behaviors. Negative behaviors included Negative other-verbalizations, Negative evaluation of the activity, Negative self-statements, and Negative physical behaviors.

Finally, in addition to the continuous recording of the frequency of these behaviors, an assessment was made of the amount of time spent in joint versus solitary activity. Joint activity was coded when mother and child were communicating with one another verbally or nonverbally, were working together on a task, or were engaged in mutual play. Solitary activity was coded when there was an absence of verbal communication, gazing, physical contact, or mutual play. (Detailed definitions of all codes are provided in the coding manual which is presented in Appendix L). To determine the reliability of these ratings, 40 of the interactions were coded by two raters. The Pearson correlation coefficient between the raters' scores was .87, indicating an acceptable degree of reliability in timing the amount of joint play.

Discussion. The measures used to assess behavior during the discussion task incorporated codes used by Gotlib (1986). The codes were designated as positive, negative, and neutral. Positive codes included: Agreements, Positive Self-statements, Positive Other-statements, and Positive statements about the Environment. Negative codes were assigned to Disagreements, Interruptions, Negative self-statments, Negative-other statements, and to Negative environment statements. Finally, neutral codes were given to Suggestions, Assents, and to statements that were neither positive nor negative in content or tone. In assigning a code to a statement or behavior, emphasis was placed on the affective tone. For example, a statement such as, "That's just great, Amanda" delivered in a sarcastic tone received a negative code. Affective cues used were based on the Couples Interaction Scoring System (CISS; Gottman, 1979). The coding system

was designed to assess the target of positive and negative statements, that is, whether they were directed at self, mother/child, other person, environment, or at the task in hand. Coding was continuous and was based on "thought units" (Gottman, 1979). A detailed definition of all codes is contained in the coding manual, which is presented in Appendix M).

The videotapes of the play and discussion interactions were coded by four paid raters (two undergraduates and two psychology graduates) who were naive to the experimental hypotheses. Two raters were trained on each coding system using demonstration tapes, until a minimum point-by-point inter-rater reliability of 75% was reached. In order to assess reliability during the coding of the actual interactions, the two raters also rated 10 dyads in common. Raters were unaware of which interactions comprised the reliability sample. Kappa coefficients calculated on play codes indicated a high degree of reliability for both positive and negative behaviors (coefficents of .97 and .96 respectively. For the discussion codes, kappas were somewhat lower (.71 and .84), but nevertheless indicated satisfactory reliability in coding positive and negative behaviors.

Finally, to obtain an estimate of both mothers' and children's perceptions of the interaction, the Post-Interaction Questionnaire (PIQ) was administered following the videotaped part of the session. The PIQ was designed specifically for this study, but was modeled after measures used in other interactional studies (e.g., Gotlib, 1986). The version administered to mothers (PIQ-M) required mothers to rate their enjoyment of, involvement in, and satisfaction with the interaction, as

well as the representativeness of their children's behavior during the interaction. On the PIQ-C, children were asked to provide ratings of their enjoyment of and involvement in the interaction. Both the PIQ-M and the PIQ-C are presented in Appendix N.

Apparatus and Setting

Mothers and children completed the first part of the session in separate rooms. The children were interviewed in a small room with comfortable chairs, and the play and discussion interactions took place in a room with comfortable chairs, a small table, a selection of toys and materials, and a one-way mirror. A room adjacent to the interaction room housed the recording equipment. A videotape system composed of a camera, video recorder, and monitor was used to record the interactions.

Procedure

Research assistants made regular contact with receptionists at the various treatment settings. At both University Hospital and at London Psychiatric Hospital, names of potential subjects were obtained from a review of case files, and were submitted to the patient's therapist with a letter requesting permission to contact the patient. (Copies of the permission letters are presented in Appendix O.) At St. Joseph's Hospital and Family Service London, new clients were presented with a letter briefly outlining the study. Clients were requested to indicate whether they: a) did not qualify for the study; b) were not interested in participating; or c) were interested in hearing more about the research. (Copies of these letters are presented in Appendix P.) A research assistant contacted those patients from London Psychiatric

Hospital and University Hospital whose therapists gave the assistant permission to contact the patients, and those patients from St. Joseph's Hospital or Family Service London who indicated interest. The research assistant briefly described the study, and outlined the procedures. (Details of the study description provided for subjects are presented in Appendix Q).

Community controls were recruited through media advertisements seeking subjects for a study of family interaction, through letters sent to parents of children attending the university preschool, and through direct solicitation of parents at a children's library. (Copies of newspaper advertisements are presented in Appendix R; parent letters are included in Appendix S). In all groups, potential subjects were asked to participate with one of their children in two sessions, the first as soon as possible; and the second approximately six weeks later. Subjects were paid $15.00 per session to cover transportation and/or babysitting expenses. All potential patient-subjects who expressed an interest in participating in the study completed a BDI, and were assessed by a clinical psychology doctoral student with respect to the DSM-III and HRSD criteria and the GAS. The assessment interviews were audiotaped, and a subset of 15 interveiws was subsequently rated by a clinical psychologist in order to establish diagnostic reliability. Perfect agreement was attained in diagnosing subjects as depressed or nondepressed. Pearson correlation coefficients of the concordance between raters revealed a correlation of .58 for the HRSD and .90 for the GAS. These data indicate that the diagnoses were made reliably, and that severity ratings were consistent

or negativity of childrens' perceptions of maternal behavior, child ratings of mothers' usual behavior are examined.

Child adjustment is considered in terms of both problems and competencies. Both maternal and clinician ratings of children's externalizing and internalizing problems are assessed, as are ratings of children's competence in school, with friends, and in activities. Given the particular focus on children of depressed mothers, ratings of children's depression based on child report, maternal rating, and clinician's assessment are examined.

In the final section, data from direct observations of mothers and children engaged in play and discussion interactions are presented. These analyses focus on the amount of time mothers spent in joint activity with their children, and the positivity and negativity of their interactions.

Plan of Analyses

The general strategy in analyzing data from this study involves the use of repeated measures multivariate analyses of variance (MANOVAs). Repeated measures designs were chosen in order to permit an assessment of the relation between maternal and child functioning over time. Multivariate analyses were selected in order to control the error rate given the large number of variables examined. (Hummel & Sligo, 1971). Repeated measures MANCVAs were conducted using the BMDP-4V program, which uses Model I, a regression approach. This approach examines the unique variance of each factor and is the one recommended when cell sizes are unequal (Kirk, 1982). In this model, the effects being estimated and the hypotheses tested are not a function of the

Following completion of these assessments, the dyadic interactions were conducted. These interactions were videotaped for purposes of coding. The first part of the each interaction consisted of a 7.5 minute unstructured activity period. Mothers were instructed to spend time with their children as they might if they had time together at home. They were informed that the child was free to use any of the materials and toys in the room. Mothers were also given a task to complete while with their children, which involved completing the first 7 questions from the PSS during their time with their child. Following this unstructured period, mothers were instructed to have their children draw a picture, the content of which was to be determined by the mother. Once again, mothers were given a competing task and were required to complete the second part of the PSS. This structured, or mother-directed, interaction also lasted 7.5 minutes.

Following completion of the two play interaction sessions, mothers and children were given the following instructions: "What I'd like you to do for the next little while is to plan something that you can do together. It could be just the two of you, or the whole family if you wish. You could plan something that you're really going to do, or it could be something that's just fun to plan, and that you could do if you had lots of time and money. Take about ten minutes. I'd like you to both take part in the planning."

Following completion of the discussion interaction, mothers were required to complete the PIQ-M, which consists of ratings of their impressions of the interaction. During this time the child completed the PIQ-C. The experimenter provided assistance to the child as

required. Finally, the experimenter thanked and paid the mother, answered any questions, and made arrangements for the next session. At the end of the final session, the experimenter briefly explained the study to the mother, answered any questions the mother might have, and expressed appreciation for her participation in the study.

Results

Overview of Sample Characteristics

The sample included 75 mothers and their children. Differences in recruitment procedures employed at various treatment centres preclude an accurate assessment of the proportion of mothers meeting inclusion criteria who agreed to participate in the study. At two outpatient psychiatric clinics, a research assistant submitted names of new admissions who were potential subjects to therapists. Although we obtained permission to approach a number of potential subjects, this strategy more frequently resulted in the therapists responding that patients were too distressed and disorganized to be further burdened by requests to participate in a research project. In the two other clinics, new clients were given a letter soliciting research involvement. Clients in these settings were self-referred to the study. Unfortunately, a breakdown of proportions of subjects who failed to meet inclusionary criteria, versus those who were disinterested in participating are not available. Given therapist responses as well as frequent refusals from patients to be involved, it is our impression that this sample represents the upper levels of functioning in the outpatient psychiatric population in London, Ontario.

Of the 75 mothers who agreed to participate, one medical patient was excluded because she met criteria for a DSM-III diagnosis of Dysthymic Disorder. One nondepressed psychiatric patient mother was excluded because she was too agitated to complete the questionnaires. Two community mothers were excluded because they had elevated scores on

the Beck Depression Inventory. Of the 71 mothers who met the inclusionary criteria, 61 returned for a second session. One medical patient mother and one nondepressed psychiatric patient mother reported scheduling difficulties and withdrew from the study. Two depressed mothers were unable to continue because they no longer had custody of their children. We were unable to contact six nondepressed psychiatric patient mothers who had either moved or had their phones disconnected between the first and second sessions. Telephone contact with the psychiatric facilities from which these mothers had been recruited revealed that these six women had discontinued therapy. The sample included 27 community mothers, 16 depressed psychiatric patient mothers, 10 nondepressed psychiatric patient mothers, and 8 medical patient mothers. In the community group there were 15 boys and 12 girls; in the depressed group there were 8 boys and 8 girls; in the nondepressed psychiatric group there were 3 boys and 7 girls; finally, in the medical group there were 5 boys and 2 girls.

To assess the relation between maternal adjustment and child adjustment, and to examine changes over time, the analyses reported in this section were conducted on the 61 mother-child dyads who attended both sessions. Due to videotaping problems and failures to complete various questionnaires, sample sizes vary in the different analyses. The sample included 29 women from intact nuclear families and 32 single women. Chi square analyses indicated that the proportions of married and single women were unequal across groups, $X^2(3) = 19.69$ $p < .001$. All the women in the medical patient group were married; in the community group over 50 percent of the women were married; in the

depressed psychiatric group 30 percent were married; and finally in the nondepressed psychiatric patient group, 15 percent were married. To explore the possibility that observed group differences were a function of marital rather than diagnostic status, all analyses were conducted with the entire sample, and again with the sample of single mothers. These analyses based on single mothers included only the two psychiatric group and the community group. The analyses conducted on the sample of single mothers mirrored the findings based on the entire sample. Despite considerable reduction in sample size, observed effects attained statistical significance in many of the analyses. To clarify presentation of results, the findings that are presented and discussed are based on the entire sample, combining data from single and married mothers.

The results are organized into three major sections addressing maternal functioning, child functioning, and the interactions between mothers and their children. Data concerning maternal and child functioning are derived from several sources: self-report by mothers and children; clinician reports on the three groups of patient mothers and their children; maternal accounts of child functioning; and children's ratings of maternal positivity and negativity.

In considering maternal functioning, group differences in demographic variables are first addressed. Second, clinician ratings of levels of depression and of levels of functioning in the three patient groups are examined. Next, mothers' self-ratings of depression, psychological distress, and of social functioning are investigated. Finally, to assess group differences in the positivity

or negativity of childrens' perceptions of maternal behavior, child ratings of mothers' usual behavior are examined.

Child adjustment is considered in terms of both problems and competencies. Both maternal and clinician ratings of children's externalizing and internalizing problems are assessed, as are ratings of children's competence in school, with friends, and in activities. Given the particular focus on children of depressed mothers, ratings of children's depression based on child report, maternal rating, and clinician's assessment are examined.

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Plan of Analyses

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pattern of cell frequencies (Spinner & Gabriel, 1981). Repeated measures univariate analyses were conducted in those cases in which the MANOVA yielded a significant effect, or in those cases in which the construct in question was assessed by means of a single measure.

In all cases, Wilks' criterion was used to determine the significance of the overall MANOVA. Significant MANOVAs were followed by repeated measures univariate analyses to determine which of the variables was contributing to the overall significance. Subsequently, post-hoc Newman-Keuls comparisons were conducted to assess differences among groups. Unless otherwise stated, the .05 level of significance is adopted in reporting differences between groups. Because subjects were assessed on only two occasions, significant effects for session can be interpreted simply by inspecting the means. In the event of a significant group by session interaction, session effects were assessed separately for each group by paired t-tests. Finally, for those data that were only obtained in the first session (e.g., demographic information), one-way ANOVAs or MANOVAs were conducted in order to assess group differences.

Maternal Functioning

Demographic Characteristics

Group means and standard deviations for mother's age, income, years of education, number of children, age of child, and length of interval between sessions are presented in Table 1. To compare subjects on demographic variables, a series of ANOVAs was conducted on subjects' age, income, years of education, number of children, age of child participating in the study, and length of time between sessions.

No group effects were found for maternal age, $F(3, 54) = 1.4$, $p > .05$, maternal education, $F(3, 54) = 2.0$, $p > .05$, number of children, $F(3, 54) < 1$, or for age of the child participating in the study, $F(3, 54) < 1$. Group main effects were found, however, for both family income, $F(3, 54) = 4.0$, $p < .05$, and for the interval between sessions, $F(3,54) = 4.7$, $p < .01$.

Insert Table 1 about here

Post-hoc Newman-Keuls comparisons revealed that the medical patient mothers reported significantly higher annual income than did either the depressed or the nondepressed psychiatric patient mothers. In addition, the interval between first and second sessions was longer for depressed patients than it was for community mothers (both $ps < .05$).

To rule out the possibility that any observed group differences are attributable to group disparities in family income rather than to diagnostic status, subsequent analyses used income as a covariate. However, the sample for which data on income is available is a reduced one, because six mothers declined to disclose their income. Therefore, in order to utilize the maximum sample size, analyses of variance were rerun using the entire sample in the event of a nonsignificant effect for the covariate. Finally, one could argue that the longer interval between sessions for depressed mothers could magnify between sessions differences for this group. To assess this possibility, in the event of a significant group by session interaction, the interval between

sessions was used as a covariate in order to determine whether observed effects are artifacts of the extended inter-session interval experienced by depressed mothers.

Clinician-Rated Patient Adjustment

All three groups of patient mothers (depressed and nondepressed psychiatric, and medical) were assessed on the Hamilton Rating Scale for Depression (HRSD) and the Global Assessment Scale (GAS). Group means and standard deviations of these score are presented in Table 2.

Insert Table 2 about here

A one-way MANCVA conducted on the HRSD and GAS scores revealed a main effect for group, $F(4, 72) = 22.57$, $p < .001$. Subsequent ANCVAs yielded group effects for both the HRSD, $F(2, 37) = 25.82$, $p < .001$, and the GAS, $F(2, 37) = 34.49$, $p < .001$. With regard to the HRSD, subsequent Newman-Keuls comparisons indicated that the depressed psychiatric patient mothers were judged to be demonstrating higher levels of depression than were either of the other two patient groups ($p < .05$). With respect to the GAS, Newman-Keuls comparisons revealed that medical patient mothers were rated as functioning at a significantly higher level of adjustment than were nondepressed psychiatric patient mothers, who in turn were rated as functioning higher than were the depressed psychiatric patient mothers (both $ps < .05$). In sum, depressed mothers scored higher than did nondepressed psychiatric patient mothers on both these measures, indicating that depressed mothers were rated as evidencing higher levels of depression

and poorer overall functioning than were the nondepressed psychiatric patient or medical patient women.

Mothers' Ratings of their Psychological Adjustment

It was predicted that mothers in the depressed psychiatric patient group would report higher levels of depression than would mothers in the other groups. Additionally, it was hypothesized that both the depressed and nondepressed psychiatric patient mothers would report higher levels of psychological distress on the Brief Symptom Inventory (BSI) than would either community or medical patient mothers. Because psychiatric patient mothers were first seen early in their treatment, and then six to eight weeks later, it was predicted that they would report lower symptomatology at session two than at session one. No comparable session effects were predicted for community mothers.

Group means and standard deviations for mothers' scores on the BDI and the BSI are also presented in Table 2. A repeated measures MANOVA conducted on these two measures yielded significant main effects for group, $F(6, 110) = 8.82$, $p < .001$, and session, $F(2, 55) = 10.58$, $p < .001$, and a significant group by session interaction, $F(6, 110) = 4.77$, $p < .001$. A repeated measures multivariate analysis of covariance (MANCOVA) with interval between sessions as a covariate indicated no effect for interval, $F(2, 54) < 1$. Thus, the pattern of results was not affected by the length of time between sessions.

A univariate repeated measures analysis of variance (ANOVA) conducted on the BDI scores revealed main effects for group, $F(3, 56) = 17.47$, $p < .0001$, and session, $F(1, 56) = 19.56$, $p < .0001$, as well as a significant group by session interaction, $F(3, 56) = 9.87$, $p < .0001$.

With respect to the group effect, Newman-Keuls comparisons revealed that the BDI scores of the depressed mothers were significantly higher than were those of mothers in the other three groups (all $ps < .05$); there were no differences in BDI scores among mothers in the other three groups.

To explore the main effect for session, the mean BDI scores across all four groups were examined. Table 2 reveals that BDI scores were lower at session two than at session one for both psychiatric groups as well as for community women. To investigate the group by session interaction, paired t-tests were conducted separately for each group, comparing BDI scores at session one with those at session two. These t-tests revealed no significant difference in BDI scores between sessions one and two for community mothers, $t(27) = 1.33$, $p > .10$, or for medical patient mothers, $t(6) < 1$. There was, however, a significant decrease in BDI scores from session one to session two for both depressed psychiatric patients, $t(15) = 5.24$, $p < .001$, and nondepressed psychiatric patients, $t(9) = 2.48$, $p < .05$.

A repeated measures ANOVA conducted on the BSI scores revealed main effects for group, $F(3, 56) = 17.49$, $p < .0001$, and session, $F(1, 56) = 13.34$, $p < .001$. The group by session interaction was nonsignificant, $F(3, 56) = 2.40$, $p > .05$. Newman-Keuls comparisons revealed that depressed mothers reported a greater number of symptoms than did mothers in the other three groups (all $ps < .05$), who did not differ from each other ($ps > .05$). An inspection of the mean BSI scores revealed that across groups, mothers reported lower levels of

psychological distress at session two compared to at session one (M = 30.8 and 43.0 respectively, $p < .05$).

Maternal Social Functioning

In light of a burgeoning literature on depressives' unfavorable ratings of their social functioning, it was predicted that depressed women would rate their social functioning more poorly than would mothers in the other three groups. Furthermore, given the relatively short intersession interval, it was predicted that observed group effects would be evident at both times of testing.

Group means and standard deviations for the Perceived Stress Scale (PSS), and for scores on Health and Daily Living (HDL) subscales for social activities, network contacts, close relationships, quality of significant relationships, family activities, and number of issues causing arguments, are presented in Table 3. A repeated measures MANOVA conducted on these measures revealed a significant main effect for group, $F(21, 133) = 2.39$, $p < .005$. The session effect was not significant, $F(7, 46) < 1$, nor was the group by session interaction, $F(21, 133) < 1$. Repeated measures univariate ANOVAs yielded group main effects for all HDL subscales: social activities, $F(3, 52) = 5.11$, $p < .01$; network contacts, $F(3, 52) = 3.78$, $p < .05$; close relationships, $F(3, 52) = 3.06$, $p < .05$; quality of relationships, $F(3, 52) = 6.01$, $p < .01$; family activities, $F(3, 52) = 3.57$, $p < .05$; and number of issues causing arguments, $F(3, 52) = 4.80$, $p < .005$, as well as for the PSS, $F(3, 52) = 9.52$, $p < .001$.

Insert Table 3 about here

Newman-Keuls comparisons indicated that the depressed women reported that they engaged in fewer social and family activities, and had fewer close relationships than did the community mothers (all ps < .05). Furthermore, depressed patient mothers rated the quality of their most significant relationship more poorly than did either community or medical patient mothers (both ps < .05). Both medical and depressed patient mothers reported fewer network contacts than did community mothers (both ps < .05). Depressed mothers reported that in their families there were arguments over a greater number of issues than did either community or nondepressed psychiatric patient mothers (both ps < .05). Finally, both depressed and nondepressed psychiatric patient mothers reported higher levels of perceived stress than did community mothers (all ps < .05). In sum, on all the indices of social functioning, depressed mothers described themselves as functioning more poorly than did community mothers. In terms of network contacts, depressed mothers were similar to medical patient mothers, and they were comparable to nondepressed psychiatric patients in terms of perceived stress.

Children's Ratings of their Mothers' Behaviors

Data from self-report studies have consistently demonstrated that depressed women make negative appraisals of their parenting abilities. However, the accuracy of such perceptions has not been established. Additional information on maternal behavior was obtained by child

ratings on the Parent Perception Inventory (PPI). The negative response set hypothesis predicted that children of depressed mothers would not differ from children of mothers in the other groups in terms of ratings their mothers. The impaired-parenting hypothesis predicted that children of depressed mothers would describe their mothers as being more negative and less positive than would children in the other three groups.

A repeated measures MANOVA conducted on children's scores on the maternal positive and negative scores from the Parent Perception Inventory (PPI) revealed no main effect for group, $F(6, 112) = 1.12$, $p > .30$, and no group by session interaction, $F(6, 112) < 1$. There was, however, a main effect for session, $F(2, 56) = 7.19$, $p < .005$. Univariate analyses indicated that this effect was obtained for both mother-positive scores, $F(1, 57) = 8.79$, $p < .01$, and mother-negative scores, $F(1, 57) = 6.50$, $p < .05$. An inspection of the means across groups revealed that children rated their mothers more positively and less negatively at session two than at session one (M positive scores--session two 29.1, session one 27.0; M negative scores--session two 8.0, session one 8.6).

In summary, depressed psychiatric patient women rated themselves as being more depressed and psychologically distressed, and as functioning more poorly socially than did community mothers. Clinician ratings of mothers' adjustment providec evidence consistent with these findings, with depressed mothers beinc rated as more distressed and more impaired than were mothers in the other patient groups. Interestingly, children's ratings of maternal behavior did not indicate

that depressed mothers differed from the other mothers in their usual behavior towards their children.

Child Adjustment

The negative response set hypothesis suggests that depressed mothers' negative ratings of their children's adjustment are a function of a tendency to view things negatively, rather than reflecting an accurate perception that their children are troubled. The negative response set hypothesis would be supported if clinician ratings failed to substantiate maternal ratings of child problems.

The child vulnerability hypothesis maintains that children of disturbed parents are at risk for a number of adjustment difficulties. This hypothesis would be supported if blind clinical ratings indicated that children of depressed patient mothers evidenced a greater number of adjustment difficulties than did children of community nonpatient mothers. Within the child vulnerability model, there are three important sub-hypotheses. The depression specificity hypothesis predicted that children of depressed mothers would demonstrate significantly higher rates of difficulties than would children in the other three groups. The psychological deviation hypothesis predicted that children of depressed and nondepressed psychiatric patient mothers would show significantly poorer functioning than would children of either medical patient or community mothers. Finally, the general disability hypothesis posited that children of patient mothers would show greater impairment than would children of community mothers, because of the detrimental impact of having a mother who is suffering distress, whether medical or psychological.

Mothers' ratings of their children were derived from the Child Behavior Checklist (CBCL). Clinician ratings were made by one of four trained interviewers, unaware of the mother's diagnostic status, according to the Child Assessment Schedule (CAS).

Within the field of child psychopathology it is well established that male and female children differ in their vulnerability and in their responses to stress (e.g., Rutter, 1984). To explore potential gender differences, the data concerning child adjustment were initially analyzed by three-way (group by gender repeated over sessions) designs. However, contrary to expectation, no gender differences were found for ratings of children's problems. Consequently, the analyses presented here involve two-way designs (group repeated over sessions), utilizing the combined sample of males and females.

To permit a comparison of maternal and clinician ratings, the results for the CBCL for internalizing problems are followed by CAS internalizing results. Group means and standard deviations for children's internalizing problems are presented in Table 4. Mothers' ratings are T-scores from the Child Behavior Checklist (CBCL) and the clinician ratings are symptom scores for subscales from the CAS. T-scores were selected for inspection and analysis because they are standardized and therefore permit a comparison of children across age ranges and gender. Second, CBCL externalizing problems are discussed, followed by CAS externalizing problems. Table 5 presents group means and standard deviations ratings of children's externalizing problems derived from the CBCL and from the CAS. Third, the findings for CBCL and CAS social competence analyses are presented. Data for these

analyses are presented in Table 6. Finally, clinicians' ratings of children's overall adjustment are presented, followed by an examination of the different ratings of children's depression.

Insert Tables 4, 5, and 6 about here

Internalizing Problems

CBCL. To assess differences in maternal perceptions of child internalizing problems, a repeated measures ANOVA was conducted on the T-scores for internalizing problems. Main effects were obtained for both group, $F(3, 53) = 4.18$, $p < .01$, and session, $F(1, 53)$ 13.75, $p < .001$; the group by session interaction was not significant, $F(3, 53) < 1$. Newman-Keuls comparisons exploring the main effect for group revealed that depressed mothers described their children as having a higher number of internalizing problems than did either medical patient or community mothers ($p < .05$). An inspection of the means revealed that across groups mothers reported their children as having fewer internalizing problems at session two than at session one ($M = 52.1$ and 55.8 respectively, $p < .05$).

CAS. A MANOVA conducted on CAS scale scores for fears and anxieties, worries and concerns, self-image, mood, and somatic complaints yielded a significant main effect for both group, $F(15, 146) = 1.93$, $p < .05$, and session, $F(5, 53) = 2.91$, $p < .05$. The interaction between group and session was nonsignificant, $F(15, 146) < 1$.

Repeated measures univariate analyses revealed group main effects for fears and anxieties, $F(3, 57) = 3.30$, $p < .05$, self image, $F(3, 57)$

= 4.22, $p < .01$, mood, $F(3, 57) = 6.94$, $p < .00$ and physical complaints, $F(3, 57) = 3.22$, $p < .05$. Newman-Keuls comparisons revealed that children of depressed mothers reported a greater number of fears than did children of community mothers; children of nondepressed psychiatric patient mothers reported significantly poorer self-image than did children of community mothers; finally, children of depressed mothers were rated as having a greater number of physical complaints and greater disturbance in mood than were children of either community or medical patient mothers (all ps < .05). Repeated measures univariate analyses revealed session main effects for fears and anxieties, $F(1, 57) = 6.58$, $p < .05$, self image, $F(1, 57) = 5.45$, $p < .05$, and physical complaints, $F(1, 57) = 4.84$, $p < .05$. An inspection of the means revealed that scores for fears and anxieties and for physical complaints decreased from session one to session two (M fears and anxieties: session one 1.1, session two 0.5, physical complaints: session one 2.1, session two 1.5). For problems in self-image however, there was an increase between sessions one and two (Ms 1.3 and 1.7, respectively).

In sum, maternal and clinician ratings consistently identified a greater number of internalizing problems in the children of depressed mothers than in the children of community mothers.

Externalizing Problems

CBCL. Differences in maternal perceptions of children's externalizing problems were assessed by a repeated measures ANOVA conducted on externalizing T scores derived from the CBCL. The ANOVA revealed a trend towards group differences, but failed to reach

conventional levels of significance, $F(3, 53) = 2.54$, $p < .07$. In addition, a main effect for session was observed, $F(1, 53) = 10.48$, $p < .01$, and the group by session interaction was nonsignificant, $F(3, 53) < 1$. In examining the session effect, an inspection of the means revealed that across groups fewer externalizing problems were reported at session two than at session one (M = 50.4 and 54.2 respectively, $p < .05$).

CAS. A repeated measures ANCOVA conducted on CAS scores for acting-out problems revealed main effects for group, $F(3, 57) = 3.13$, $p < .05$. There was no main effect for session, $F(1, 57) = 1.49$, $p > .20$, and no group by session interaction, $F(3, 57) = 1.69$, $p > .10$. Newman-Keuls comparisons revealed that the between-groups differences were not of sufficient magnitude to attain statistical significance (all $ps > .05$).

In sum, although clinicians found group differences in children's externalizing problems, these were not as robust as the differences observed for internalizing problems. No group differences were evident in maternal ratings.[1] In addition, across all groups mothers rated their children as having fewer problems at session two, than at session one.

Social Competence

CBCL. Maternal perceptions of child competence were assessed by a repeated measures MANCOVA conducted on the three social competence T scores derived from the Child Behavior Checklist, namely activity T score, social T score and school T score, using income as a covariate. In contrast to the analyses for internalizing and externalizing problems, the repeated measures MANCOVA revealed that income exerted a

significant effect, $F(3, 42) = 3.46$, $p < .05$. Furthermore, group main effects were not evident once income was covaried, $F(9, 102) < 1$, indicating that any differences in maternal ratings of child competence could be accounted for by group disparities in income. No main effect was obtained for session, $F(3, 43) < 1$, nor was there a significant group by session interaction, $F(9, 105) < 1$.

CAS. Clinician ratings of child social competence were assessed by a repeated measures MANOVA conducted on symptom ratings from the CAS in the areas of school, activities, and friends. The MANOVA revealed no main effects for either group, $F(9, 134) < 1$, or session, $F(3, 55) = < 1$, and no group by session interaction, $F(9, 134) = 1.26$, $p > .20$. Thus, clinician ratings of child difficulties in school, in activities, or with friends did not discriminate between children in the various groups, nor was children's functioning in these areas found to change significantly across session. This finding is consistent with maternal ratings indicating no differences in child competence over and above the effects of family income.

Overall Functioning

A repeated measures ANCVA conducted on GAS-C scores indicated a main effect for group $F(3, 57) = 9.$, $p < .001$. There was no main effect for session, $F(1, 5$) < 1, and no group by session interaction, $F(3, 57) = 1.44$, $p > .20$. Newman-Keuls comparisons in relation to the group main effect indicated that children of both depressed and nondepressed psychiatric patient mothers were rated as functioning at a lower level of emotional adjustment (mean GAS-C scores of 65.1 and

68.3) than were children of medical patient or community mothers (M GAS-C scores of 78.2 and 77.1, respectively, both ps < .05).

Child Depression

Given the focus on children of depressed mothers, particular attention was paid to depressive symptoms in children. Table 7 presents group means and standard deviations of child depression ratings by children (scores on the Children's Depression Inventory: CDI), by mothers (scores on the CDI completed by mothers responding as they thought their children would respond--MCDI), and by clinicians (symptom ratings for mood problems and difficulties in emotional expression, derived from the GAS).

Insert Table 7 about here

Child self-ratings of depression. Contrary to prediction, a repeated measures ANCVA conducted on the CDI scores revealed that the main effect for group was nonsignficant, $F(3, 56) = 2.34$, $p > .08$; the main effect for session was significant ($F(1, 56) = 9.14$, $p < .005$), but the group by session interaction was not, $F(3, 56) < 1$. With respect to the main effect for session, an inspection of the means across all groups revealed that children's self-rated depression scores decreased from the first to the second session ($M = 4.1$ and 2.8 respectively, $p < .05$). Across groups children's scores were in the nondepressed range, and in fact were lower than normative scores.

Maternal ratings of child depression. A repeated measures ANOVA conducted on the MCDI data revealed a main effect for group $F(3, 55) =$

4.7, $p < .01$, but no main effect for session, $F(1, 55) < 1$, and no group by session interaction, $F(3, 55) < 1$. Newman-Keuls comparisons with respect to the group main effect indicated that both depressed and nondepressed psychiatric patient mothers rated their children higher on the MCDI than did community mothers ($ps < .05$). However, across groups mean maternal ratings were within the nondepressed range.

Clinician ratings of child depression. Symptom ratings for mood were previously analyzed within the group of internalizing problems, and are combined here with clinician observations of disturbance in emotional expression that have not previously been incorporated in analyses. A repeated measures MANCVA conducted on these scores revealed main effects for group, $F(6, 112) = 4.25$, $p < .001$, and session, $F(2, 56) = 12.74$, $p < .001$; the group by session interaction was nonsignificant, $F(6, 112) = 2.10$, $p > .05$. Repeated measures ANCVAs indicated that the main effects for group and session were evident for both mood symptoms, $F(3, 57) = 6.58$, $p < .001$, and for ratings of emotic expression, $F(3, 57) = 4.82$, $p < .05$.

Newman-Keuls comparisons with respect to the group main effect revealed that children of depressed mothers evidenced a greater number of symptoms of mood disturbance than did children of either community or medical patient mothers ($ps < .05$). The mean symptom ratings assigned to these children are comparable to ratings assigned to outpatient children (Hodges, Kline, et al., 1982). In addition, children of depressed mothers evidenced greater disturbance of emotional expression than did children of community mothers.

With respect to the main effect for session, an inspection of the means indicated that across groups, there was a trend for clinicians to identify fewer affective symptoms at session two than at session one (M = 0.4 and 2.4, respectively, $p < .05$).

In sum, then, although children in the various groups do not differ in self-ratings of depression, there are clear differences in both clinician and maternal ratings of the child's affective symptoms. In terms of maternal ratings, both depressed and nondepressed psychiatric patient mothers rate their children higher on the MCDI than do either medical or community mothers. An inspection of the means reveals a similar pattern in clinician ratings of depressive symptoms; however, the clinicians' ratings of affective symptomatology in children of nondepressed psychiatric patient mothers, although elevated, are not significantly different from those of medical or community mothers.

Mother-Child Interaction

Having observed that depressed mothers judge themselves to be distressed and to have difficulties in social functioning, and that clinicians, too, observe these problems in depressed women, it is puzzling that the children of depressed mothers do not report any greater negativity or lack of positivity in their mothers' behavior. Furthermore, although children of depressed mothers do not acknowledge experiencing any greater number of depressive symptoms than do children in the other three groups, mothers and clinicians both observe internalizing problems in these children. Given such discrepancies between maternal and child report, it is important to examine the

interactions of depressed mothers and their children to determine whether they differ qualitatively from those of mother-child dyads in the other three groups.

Different types of dysfunctional interactional patterns were considered. The self-focus hypothesis predicted that depressed mothers would be more self-absorbed and less available to interact with their children. This would be supported by group differences in the amount of time spent in joint interaction with the child rather than engaging in solitary or self-focused activity. To determine whether depressed mothers interact more with their children when required to direct their play, mothers were observed in both structured (mother-directed) and unstructured play.

The maternal negativity hypothesis would be supported if depressed mothers were observed to behave in a critical or disparaging way towards their children. The difficult child hypothesis would be supported if children of depressed mothers were observed to be more whiny, negative and noncompliant than were children in the other three groups.

Proportion of Joint Activity in Mother-Child Play

A three-way (group by structure repeated over sessions) ANOVA conducted on percentage of joint activity yielded no main effects for group, $F(3, 56) < 1$, session, $F(1, 56) = 2.53$, $p > .10$, or structure, $F(1, 56) < 1$. There were no significant interactions between group and structure, $F(3, 56) < 1$, between group and session, $F(3, 56) < 1$, or between session and structure, $F(1, 56) < 1$. Finally, the three-way interaction among group, session and structure was not significant,

$F(3, 56 = 1.34, p > .20$. In sum, contrary to the predictions of the self-focus hypothesis; there were no differences among the groups in terms of the proportion of time mothers spent in joint interaction with their children.

Positivity and Negativity in Mother-Child Play Interaction

Table 8 presents the proportions of positive and negative behaviors emitted by mothers and children in structured and unstructured play.

Insert Table 8 about here

These play interactions were assessed by three-way (group by structure repeated over sessions) MANOVAs conducted on codes for broad groupings of mother negative and positive behaviors, and child negative and positive behaviors. For mother behaviors, a significant main effect was not obtained for group, $F(6, 96) < 1$, although there were main effects for both session, $F(2, 48) = 5.61, p < .01$, and structure, $F(2, 48) = 4.18, p < .05$. There were no significant interactions between group and session, $F(6, 96) = 1.94, p > .08$, group and structure, $F(6, 96) = < 1$, or session and structure, $F(2, 48) = 2.30, p > .10$, nor was there a significant three-way interaction, $F(6, 96) = < 1$.

Repeated measures ANOVAs revealed a significant effect for session only for maternal negative behaviors, $F(1, 49) = 10.42, p < .01$. An inspection of the means with respect to the session effect indicated that mothers emitted fewer negative behaviors at session two than at session one. Repeated measures ANOVAs with respect to the structure

effect indicated that this, too, was found only for maternal negative behaviors, $F(1, 49) = 8.54$, $p < .01$. The means indicate that mothers were more negative in unstructured than in structured play. In sum, the analyses indicated no differences between mothers in the four groups in terms of either positivity or negativity, lending no support to the maternal negativity hypothesis.

For child behaviors, there were no main effects for group, $F(6, 96) = 1.22$, $p > .30$, or session, $F(2, 48) < 1$; the main effect for structure was significant, $F(2, 48) = 7.37$, $p < .01$. There were no interactions between group and session, $F(6, 96) < 1$, structure and group, $F(6; 96) < 1$, or structure and session, $F(2, 48) = 2.55$, $p > .08$, nor was there a significant three-way interaction, $F(6, 96) < 1$. Univariate analyses indicated that the main effect for structure was evident only for child positive behaviors, $F(1, 49) = 12.65$, $p < .001$. An examination of the means revealed that across groups, children emitted a greater number of positive behaviors during unstructured than they did during structured, or mother-directed, play. As with mother behaviors, no group differences were evident in terms of child negativity or positivity, providing no support for the difficult child hypothesis.

Discussion Interaction

Analyses were conducted on broad groupings of codes labelled mother positive, mother negative, child positive, and child negative. Repeated measures MANOVAs were conducted for child behaviors and mother behaviors. The MANOVA conducted on mother positive and negative behaviors revealed no main effects for group, $F(4, 66) < 1$, or session,

$F(2, 33) = 1.60$, $p > .20$, and no group by session interaction, $F(4,66) < 1$, indicating that mothers from the four groups did not differ in terms of positive and negative behaviors emitted during a discussion task. The repeated measures MANOVA conducted on broad groupings of child positive and negative behaviors also revealed no main effects for group, $F(4, 66) < 1$, and no group by session interaction, $F(4, 66) = 1.49$, $p > .20$. There was, however, a significant main effect for session, $F(2, 33) = 3.51$, $p < .05$. Subsequent repeated measures ANCVAs indicated that this session main effect was evident only for child negative behaviors, $F(1, 34) = 4.48$, $p < .05$. An inspection of the means indicated that across groups children emitted more negative behaviors at session two than at session one (Ms 12.3 and 9.9 respectively, $p < .05$). In sum, data from both play and discussion interaction revealed no group differences in the various behavioral codes.

The Post-Interaction Questionnaire for sessions one and two includes questions on the enjoyment of, involvement in, and satisfaction with the interaction, and an estimate of the representativeness of the other person's behavior. Group means and standard deviations for these data are presented in Table 9. A repeated measures MANOVA conducted on maternal data yielded no significant main effects for either group, $F(12, 135) = 1.64$, $p > .08$, or session, $F(4, 51) = 1.33$, $p > .20$. The group by session interaction was significant, however, $F(12, 135) = 2.17$, $p < .05$. Subsequent univariate repeated measures analyses indicated that the interaction was obtained for maternal ratings of involvement in the interaction,

$F(3, 54) = 3.26$, $p < .05$, and for maternal satisfaction with the interaction, $F(3, 54) = 2.97$, $p < .05$. To investigate the group by session interactions, paired t-tests were conducted separately for each group, comparing session one and session two scores for involvement and satisfaction. These t-tests revealed that the only significant differences between session one and session two scores occurred in the group of medical patient mothers. These differences were evident only for involvement, $t(5) = 4.57$, $p < .01$. An inspection of the means indicated that medical patient mothers reported experiencing less involvement at session two than at session one, (Ms 5.8 and 7.7, $p < .05$).

Insert Table 9 about here

A repeated measures MANOVA conducted on children's ratings of enjoyment, involvement, and representativeness yielded a significant main effect for group, $F(9, 124) = 2.40$, $p < .05$. There were no significant effects for either session, $F(3, 51) > 1$, or for the interaction between group and session, $F(9, 124) = 1.27$, $p > .20$. Univariate analyses indicated that the group main effect was obtained for children's ratings of their enjoyment of the interaction, $F(3, 53) = 3.09$, $p < .05$. An inspection of the means revealed that children of psychiatric patient mothers reported less enjoyment, but Newman-Keuls comparisons indicated that the magnitude of these differences was not sufficient to attain statistical significance at the .05 level.

In sum, self-reports from both mothers and children tend to corroborate the observers' ratings of few group differences in the interactions. Across groups, mothers and children rated each other as behaving in a similar fashion to normal. They experienced the situation as moderately enjoyable and, with the exception of the medical mothers at the second session, all participants reported a sense of involvement in the interaction.

Discussion

In discussing the results obtained in this study, data on maternal functioning, child adjustment, and mother-child interaction are considered in turn. Within each section, results are addressed in terms of the three major issues presented in the introduction, namely, the specificity to depression of observed effects, the stability of the effects over time, and the concordance among raters.

Maternal Functioning

Patients' scores on the Hamilton Rating Scale for Depression (HRSD) indicated higher levels of clinician-rated depression in the depressed psychiatric patient group than in either the nondepressed psychiatric patient group or the medical patient group, thereby providing confirmation of the group assignment procedure. The mean HRSD scores obtained by the depressed women are somewhat lower than the scores reported by Carroll et al. (1973), suggesting that the depressed women in this study, although psychiatrically disturbed, may not be representative of a severely disturbed population of depressed women receiving outpatient psychiatric treatment.

Ratings on the Global Assessment Schedule (GAS) also revealed significant group differences among mothers in the three patient groups. The average score assigned to medical patient mothers was in the range indicating sub-optimal functioning with little or no psychiatric symptomatology. Both groups of psychiatric patients scored within the range suggested by Endicott et al. (1976) as identifying individuals who require outpatient treatment. The nondepressed patients were rated as being less impaired than were their depressed

counterparts. This discrepancy in severity of impairment between depressed and nondepressed psychiatric patient women must be borne in mind when evaluating subsequent differences between these two groups. Given the disparity in levels of disturbance, it is possible that differences between the depressed and nondepressed psychiatric patient groups are a function of the severity of impairment rather than of diagnostic status. This interpretation would be consistent with recent findings indicating that severity of maternal impairment has a stronger association with child adjustment than does diagnostic status (e.g., Harder, Kokes, Fisher, & Strauss, 1980; Keller et al., 1986).

Patients' self-reports on the Beck Depression Inventory (BDI) were consistent with clinicians' ratings on the HRSD. At the first session, depressed patients reported BDI scores in the moderately depressed range, whereas mothers in the other three groups reported scores in the nondepressed range. Corresponding with clinicians' ratings on the GAS, depressed mothers' ratings on the Brief Symptom Inventory (BSI) also indicated that they were experiencing more intense psychological distress than were women in the other three groups. Despite clinician-rated differences between the nondepressed psychiatric and medical patient mothers, the self-ratings of psychological distress indicated no statistically significant differences between these two groups. Furthermore, the levels of distress reported by the nondepressed psychiatric patient mothers and the medical patient mothers were both comparable to the scores reported by the community mothers. These findings indicate that although clinicians observed some degree of impairment in nondepressed and medical patient women, these women did

not acknowledge psychological difficulties on the BSI. In contrast, the depressed women were more concordant with clinicians in evaluating their symptomatology. This pattern of results is consistent with the observations of Lewinsohn et al. (1980), in that discrepancies between depressed and nondepressed subjects appear to reflect an accurate appraisal by depressed women, and a positive bias or "illusory glow" in the nondepressed women.

When reassessed six to eight weeks later, both groups of psychiatric patient women reported fewer depressive symptoms than they had in the first session. Initially depressed women reported only mild levels of depression at the second session. Interestingly, at the second session, their BDI scores continued to be higher than were those of community and nondepressed psychiatric patient women, but were comparable to those of the medical patient women. It should be noted that all women, including medical patients, completed an unabridged version of the BDI, and it is possible that medical patients' scores may reflect the endorsement of physical symptoms such as fatigue and weight loss. Across groups, women reported lower levels of distress at the second session, but depressed women continued to report greater distress than did the women in the other three groups.

In sum, consistent with predictions, at the first session depressed women reported moderate levels of depression and demonstrated levels of impairment that warranted out-patient mental health treatment. Nondepressed psychiatric patient women also reported psychological difficulties requiring treatment, but these women were not depressed and were not as impaired as were the depressed women. At


2
1.0
1.1
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2.8
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2.5
2.2
2.0
1.8
MicroD

follow-up, both groups of psychiatric patient women evidenced improvement in terms of their levels of depression and of general psychological distress. The medical patient group evidenced mild psychological difficulties and slightly elevated depression scores, but their functioning was not sufficiently disturbed to warrant psychiatric treatment. In interpreting group differences, diagnostic status is associated with severity of impairment, making it difficult to separate the effects of each. Therefore, the hypothesis that severity of disturbance rather than depression accounts for differences must be considered.

In terms of self-reported social functioning, based on responses to the Health and Daily Living Form (HDL) and the Perceived Stress Scale (PSS), the depressed women were more impaired than were the community women on all seven indices. Compared to community women, the depressed women reported engaging in fewer activities with either family or friends, having a smaller network of friends, and having fewer close relationships. In addition, the depressed women also reported that the quality of their closest relationship was poorer, that there were a greater number of issues that caused arguments in their families, and that they felt more stressed. In contrast, the nondepressed psychiatric patients differed from the community mothers on only one index: they reported higher levels of perceived stress. Medical patient mothers also differed from community mothers on only one index: they reported having a smaller network of friends.

A comparison of depressed womens' scores with those of women in the other two patient groups indicated many areas of overlap.

Depressed women differed from nondepressed psychiatric patient women only in terms of the number of issues causing arguments. Thus, nondepressed psychiatric patient women described their social functioning as being intermediate between that of community women and that of depressed psychiatric patient women. Similarly, medical patient women reported levels of social functioning that were comparable with those of depressed women on all but two indices: medical patient women reported feeling less stressed and rated the quality of their most significant relationship more positively than did depressed women.

Clearly, the depressed women described their social functioning as being poorer than that of the community women, thereby replicating Moos et al.'s (1983) results. The specificity to depression of these deficits, however, remains at issue. The general disability hypothesis was supported with respect to network size; both depressed and medical patient mothers reported having smaller networks than did community mothers. The psychological distress hypothesis was supported with respect to perceived stress. Overall, the lack of consistent differences between depressed patients and either nondepressed psychiatric or medical patients permits speculation that the pattern of results is due to the more severe psychological impairment of the depressed women, rather than to their diagnostic status.

Despite the reduction in depressive symptomatology reported by the depressed women in the second session, the pattern of results for social functioning obtained at session one remained unchanged at session two. These data lend support to the prolonged impairment

hypothesis and are consistent with the findings reported by Weissman and Paykel (1974) and Keitner et al. (1987). They suggest that impairments in interpersonal functioning may be enduring even at mild levels of depressive symptomatology. Alternatively, it may take a longer time than a six to eight week interval for an individual's alleviation of symptoms to effect changes in his/her interpersonal functioning. Reassessment of the subjects several months later would allow a determination of whether improvements in mothers' affective state had permeated their relations with others.

In future assessments of depressed subjects, it will be important to obtain information not only on the severity of impairment, but also on the chronicity, in order to determine the effects of prolonged versus acute symptomatology on social functioning. Presumably, the longer the duration of the disturbance, the greater the difficulty in reestablishing patterns of social functioning. For example, a person who has withdrawn from social contact may find it difficult to resume activities, and re-entry into a social circle may become progressively more difficult the longer the duration of the isolation. In sum, individuals with a long-standing history of depressive symptomatology may manifest more severe social impairments, and may require a longer period of time before their social functioning returns to normal. The cumulative effects of prolonged symptomatology clearly require further investigation.

Children's ratings on the Parent Perception Inventory (PPI) of their mothers' usual behavior revealed no differences among groups. Therefore, from the children's reports, it appears that the

symptomatology of the patient mothers was not associated with increased negativity or decreased positivity towards their children. However, all children rated their mothers more positively and less negatively at session two. Because between-session effects were evident across all four groups, the shift toward more positive appraisals should not be seen as related to alleviation in maternal symptomatology.

In contrast to the present findings, Hazzard et al. (1983) found that children from distressed families rated their mothers as behaving more negatively than did children from nondistressed families. However, Hazzard et al.'s definition of "distressed" was a global one, and the distressed families in their study may not be equivalent to the families of either the depressed or the nondepressed psychiatric patient mothers in the present study.

Given both clinician and maternal ratings of maternal difficulties, the absence of group differences in children's ratings across sessions is noteworthy. It may be that the women in this study were not sufficiently impaired for deficits in parenting to be evident; at moderate levels of depression mothers may be able to continue to treat their children normally, and to protect them from any depression-related negativity. Additionally, the PPI is one of the first instruments to be developed which assesses children's perceptions of parental behaviors. The accuracy of children's perceptions of parental behavior has not been well-established, and it is possible that children are unable to accurately rate their parents in behavioral terms. Alternatively, the childrens' reports may reflect an overly positive view, or a desire to avoid making negative statements about

their mothers. The task of assessing children's perceptions of parental behavior may also require closer attention to developmental factors involved in making such ratings.

In summary, the depressed women in this sample described themselves as experiencing higher levels of depression and general psychological problems than did women in the other three groups. Ratings by clinicians corroborated these self-report data. At the second session, although improved, the depressed women continued to report mild levels of depression. Depressed women reported widespread impairments in social functioning compared to community women; nondepressed psychiatric and medical patieht women also acknowledged some areas of social dysfunction. Because there were several areas of overlap among the three groups of patient women, the specificity of observed impairments to depression cannot be categorically stated. A plausible alternate hypothesis is that deficits in social functioning are associated with emotional and physical disorder, and that the impairments found in the depressed women reflect their more severe levels of psychopathology. Consistent with the prolonged impairment hypothesis, even when they were symptomatically improved, depressed women continued to report social functioning deficits in all domains. Finally, despite the concordance between mothers and clinicians in identifying maternal problems, children did not report any differences in their mothers' usual behaviors toward them.

Child Adjustment

Maternal ratings of their children's adjustment derived from the Child Behavior Checklist (CBCL) indicated that depressed mothers rated

their children as having a significantly greater number of internalizing problems than did either community or medical patient mothers. Fifty percent of the depressed mothers rated the extent of their children's problems as greater than the clinical cut-off indicative of problems at the 90th percentile for children of this age range (Achenbach & Edelbrock, 1983). Thus, half the depressed mothers in this sample described their children as experiencing difficulties warranting treatment. The nondepressed psychiatric patient mothers did not differ from mothers in any of the other three groups in rating their children's internalizing problems.

Clinician ratings on the CAS indicated that children of the depressed mothers had more fears, more disturbance of mood, and a greater number of somatic complaints than did children of the community mothers. Children of the nondepressed psychiatric patient mothers were rated as having a lower self-image than were children of the community mothers. The number of internalizing symptoms found in children of the psychiatric patient mothers is comparable to the number reported for children receiving psychiatric treatment (Hodges, Kline, et al., 1982). Children of medical patient mothers did not differ significantly from either children of community mothers or children of nondepressed psychiatric patient mothers for any of the internalizing problems.

There were several areas of overlap among the children of the patient mothers. Children of depressed and nondepressed psychiatric patient mothers did not differ significantly from each other on any of the indices of child adjustment. Children of medical patient mothers differed from children of depressed mothers in terms of having less

mood disturbance and fewer somatic complaints. Although children of depressed mothers were rated as the group being most troubled by internalizing problems, the absence of a significant difference between the two psychiatric groups in either clinician or maternal ratings raises doubts about the specificity of this effect to depression.

The consistency between clinician and maternal ratings of child internalizing problems suggests that mothers' ratings of children's internalizing problems are accurate and do not reflect a maternal negative response set. These findings support the hypothesis that children of depressed mothers are vulnerable to internalizing problems. Given the overlap between children of mothers in the two psychiatric patient groups, it is unlikely that this pattern of child behavior is specific to depression. The data suggest that maternal psychological disturbance affects children's internalizing problems, and that more severe impairment is associated with more serious child disturbance.

It is instructive to compare the present data with those of a recent report on the offspring of anxiety disorder patients, dysthymic disorder patients, and two community control groups (Turner et al., 1987). Although the present results are consistent with those of Turner et al. in identifying more fears and more depression in the children of affectively disturbed parents than in children of community parents, there are also important differences between the two studies. In Turner et al.'s (1987) study, the most severe internalizing problems were found in the children of anxiety disorder parents, whereas in the present study, children of depressed mothers were most distressed. This apparent discrepancy may be attributable to the relative severity

of maternal disturbance in the different groups. In the present study, the affectively disordered mothers were the most severely impaired group. In Turner et al.'s investigation, the anxiety disorder group was composed of agoraphobic and obsessive-compulsive disorder parents. These disorders likely reflect the severe end of the anxiety disorder spectrum; in contrast, Turner et al.'s dysthymic group consisted of parents whose disturbance represents a less severe type of affective disorder. In light of other findings indicating that severity of parental psychopathology is related to child adjustment (e.g., Harder et al., 1980; Keller et al., 1986), it is possible that in both studies the severity of impairment in children was related to the severity of parental impairment rather than to parental diagnostic status. However, because Turner et al. do not provide ratings of parents' disturbance, an assessment of this hypothesis in their study is precluded. In future research, it will be important to compare parents with different diagnoses who are equated in terms of the severity of their psychopathology.

Across all four groups, both mothers and clinicians rated children as having fewer internalizing problems at session two than at session one. The absence of a group by session interaction rules out the explanation that this amelioration in ratings of child functioning is related to the amelioration of maternal depression.

The tendency for both clinicians and mothers to rate children more positively at the second session echoes the children's more positive evaluations of their mothers at the second session. Possible factors that could account for such a pattern include regression to the mean,

maturation, history, seasonal variation, or testing effects. First, because more positive ratings occurred across all groups, including community subjects whose initial scores were not extreme, the regression to the mean explanation seems unlikely. Second, because data collection took place over a two-year span, seasonal variations (such as holidays, end of school, or entering a new grade), and historical events cannot account for the consistency of more positive ratings at the second session. Third, given both the relatively short inter-session interval and the relatively wide age range of children, it seems unlikely that children's maturation could account for the more positive ratings; this is particularly true in the case of the CBCL data, which is normed according to age. However, several mothers informally noted that they found the measures of child adjustment interesting, and it is possible that the administration of the various measures may have sensitized participants to children's adjustment. Were this the case, it would suggest that observed shifts represented an artifact of testing. Such a testing effect could have resulted in changes in maternal parenting and a concomitant improvement in children's behavior. Alternatively, both mothers and children may have become more guarded and less willing to disclose difficulties at the second session. Further work is obviously necessary in order to examine these possibilities more explicitly.

The CBCL data indicated no differences among groups in terms of externalizing problems. Analyses indicated that the clinicians found group differences among children in terms of their externalizing problems, however, none of the univariate between-group comparisons was

of sufficient magnitude to attain statistical significance. The present findings regarding externalizing behavior are consistent with those obtained by Turner et al. (1987), in that no differences were found with respect to children's acting-out problems identified on the CAS.

As a caveat, it should be noted that mothers who were currently involved in child management training were excluded from the study. This criterion is likely to have eliminated children with extreme externalizing problems from the sample. In light of this bias in subject selection, the rate of externalizing problems reported in this group of children of depressed mothers may be an underestimate of the population rate for children of depressed mothers.

Similar to the pattern for internalizing problems, mothers rated their children as having fewer externalizing problems at session two than session one. This pattern was manifest across all four groups and, again, cannot be attributed to improvements in maternal functioning. Clinicians, on the other hand, did not report between-session differences in children's externalizing problems. These discrepancies highlight the need for further research concerning the nature of information provided by different informants regarding children's functioning.

Maternal ratings of children's social competence revealed that medical patient mothers described their children as being more involved in social activities than did mothers in the other three groups, who did not differ significantly from each other. A covariance analysis indicated that this difference was accounted for by the higher income

level of the medical group. The sensitivity of the CBCL social competence items to socio-economic status effects has also been noted by Achenbach and Edelbrock (1983).

Consistent with the maternal ratings, no differences among groups were found with respect to the clinicians' ratings of children's competence. In contrast to the results for behavior problems, the data concerning children's competence clearly show no vulnerability associated with maternal difficulties. These findings are consistent with results reported by Turner et al. (1987) and by Hammen et al. (1987). It is possible that these findings accurately reflect the competence of children in the current study and that behavior problems observed represent responses to stresses associated with maternal dysfunction. Alternatively, it is possible that the measures assess only overt aspects of competence and do not fully assess children's competence. In future research, it will be important to address the issue of school-aged children's competence in greater detail (Maccoby & Martin, 1983). Just as studies of infants have examined attachment (e.g., Lyons-Ruth et al., 1986; Radke-Yarrow et al., 1985), older children's competence could be assessed in a number of domains through the use of developmentally relevant tasks (Sroufe & Rutter, 1984). For example, children could be assessed in terms of problem-solving abilities, peer interactions, affective expression, or ability to cope with stressors.

Scores on the Global Assessment Scale for Children (GAS-C) indicated that clinicians rated children of depressed and nondepressed psychiatric patient mothers as functioning at a lower level of

emotional adjustment than they rated children of either medical or community mothers. In terms of children's overall functioning, then, the psychological disturbance hypothesis is clearly supported. The present findings are also consistent with those of Turner et al. (1987) and Hammen et al. (1987), in that children of psychiatrically disturbed parents were rated as functioning at a lower level of adjustment than were children of community parents.

Clinicians did not rate children of psychiatric patient mothers as being improved at follow-up. This absence of improvement in the children of psychiatrically disturbed women provides support for the prolonged impairment hypothesis. Interestingly, the stability of clinician-ratings of overall child adjustment difficulties among children of depressed mothers mirrors the pattern of enduring social functioning impairments found in their mothers.

Children's self-ratings on the Children's Depression Inventory (CDI) indicated no group differences in depression scores. These results were consistent with Hammen et al. (1987) findings that when overall levels of stress were covaried, children of depressed, medically ill and normal mothers did not differ in terms of their CDI scores. Interestingly, all children in this sample reported levels lower than those reported in normative studies (e.g., Finch et al., 1985). This discrepancy may be attributable to the method of administration. In studies with non-referred children, the CDI is typically administered to large school-classes, whereas in the current study, children were seen individually in a hospital setting. Although older children completed the CDI without assistance, participants may

have felt less anonymous and more inhibited than would subjects in mass-testing, and consequently may have under-reported depressive symptomatology. This is consistent with clinicians' informal observations of the children. For example, having acknowledged affective symptomatology during the CAS interview, several children lingered over items endorsing such symptoms, but eventually checked the least disturbed option on the CDI.

If CDI ratings are indeed influenced by contextual factors, this would have important implications for screening children. To date, only one study (Saylor et al., 1984) has compared children's scores under group versus individual administration. These investigators found that children who completed the CDI individually obtained lower scores than did children who completed the CDI in a group administration format, but these differences were not statistically significant. Further research is required to determine empirically whether the method of administration is related to the willingness of nonreferred children to endorse depressive items.

Both depressed and nondepressed psychiatric patient mothers rated their children as scoring higher on the CDI than did either community or medical patient mothers, providing support for the psychological disturbance hypothesis. Although higher than those of community or medical patient mothers, psychiatric patient mothers' mean ratings of their children were in the nondepressed range (Kazdin et al., 1986). Clinician ratings indicated that children of depressed mothers demonstrated greater mood disturbance than did children of either community or medical patient mothers. The mean symptom ratings

assigned to these children are comparable to ratings assigned to out-patient children (Hodges, Kline, et al., 1982). In addition, children of depressed mothers showed greater disturbance of emotional expression than did children of community mothers. These children did not differ from children of nondepressed psychiatric patient mothers on either index. The clinician results are suggestive of the effects of maternal psychological disturbance on children's affective state.

Children in all groups reported lower CDI scores at session two than at session one. Similarly, clinicians also rated children in all groups as having fewer affective problems at session two than at session one. The lack of a group by session interaction rules out changes in maternal adjustment as factors affecting children's scores. Furthermore, this between-session decrease in children's scores is consistent with normative data (e.g., Smucker, Craighead, Craighead, & Green, 1986). In contrast to the children's and clinicians' ratings, the mothers' ratings did not differ between sessions, indicating that even when psychiatric patient mothers were symptomatically improved, they continued to rate their children higher on the MCDI than did mothers in the other two groups. This lack of improvement in maternal ratings at follow-up is consistent with the prolonged impairment hypothesis. It is also similar to the between-session consistency of clinician ratings of overall adjustment difficulties in children of psychiatric patient mothers. Interestingly, although mothers reported improvements in their childrens' internalizing and externalizing behaviors between sessions one and two, they did not report similar amelioration in children's depressive symptoms. This discrepancy may

be related to differences in response format: in completing the CBCL mothers rate their child's observable behaviors, whereas in filling out the CDI, mothers are required to make inferences about their child's self-perceptions. In other studies, parental reports have been found to be more concordant with children's reports in relation to overt problems than to children's internal experiences (Herjanic & Reich, 1982; Kazdin et al., 1983). It is possible that maternal responses to the CBCL were based on the mothers' observations of their children's behavior and were susceptible to change, whereas the mothers' responses to the CDI may have been based more on their more global and enduring appraisals of the children's internal experiences. It is important to note that whereas the CBCL requires a rating of the child's behavior over the previous six months, the MCDI refers to feelings over the past two weeks. One might predict therefore that CBCL ratings would remain constant between sessions, whereas MCDI scores would be subject to greater change. Interestingly, contrary to these predictions, MCDI responses were stable between sessions, whereas CBCL scores evidenced between session change.

In sum, then, although children of psychiatric patient mothers did not report a greater number of symptoms on the CDI than did children whose mothers were not psychiatric patients, both mothers and clinicians rated these children as being more affectively disturbed than they rated children of medical patient or community mothers. These findings do not support the hypothesis that psychiatric patients' reporting is affected by a negative response set, but rather, they indicate that these children may be vulnerable to affective

disturbance. The results of the current study are consistent with those of other researchers in identifying more affective symptoms in the children of depressed parents than in the children of community parents (e.g., Cytryn et al., 1982; Decina et al., 1983; Hammen et al., 1987; Turner et al., 1987; Welner et al., 1977). However, they indicate further that this vulnerability is not limited to children of depressed parents, but extends to children of parents exhibiting various types of psychiatric disturbance.

Taken together, the data on child adjustment corroborate many previous findings of impairment in the children of depressed parents (e.g., Billings & Moos, 1983; Cytryn et al., 1982; Weissman et al., 1984; Welner et al., 1977). The present findings indicate that reported impairments are not a function of depression-related maternal negative response set, but are also evident to clinicians blind to maternal diagnostic status.

Observed impairments in the children of nondepressed psychiatric patient women call into question the specificity to maternal depression of poor child adjustment. Data on internalizing problems, overall adjustment, and affective disturbance support the psychological disturbance hypothesis, in that children of both depressed and nondepressed psychiatric patient women demonstrated greater difficulties than did children of either medical patient or community women. Severity of maternal impairment appears to be as plausible an explanation of the current findings as does maternal diagnostic status. In the current study, diagnostic status and severity of impairment were confounded, thereby obfuscating an analysis of the unique contributions

of each to the prediction of child adjustment. The current findings are consistent with results obtained in other populations such as abused and neglected children (e.g., Aragona & Eyberg, 1981; Wolfe, 1985), children of battered women (e.g., Wolfe, Jaffe, Wilson, & Zak, 1985), and children from divorced and discordant families (e.g., Emery, 1982). These studies indicate that children exposed to parental disruption evidence a variety of adjustment difficulties. Such findings underscore the need to turn attention from a narrow focus on discrete events or specific diagnostic categories to begin to examine more comprehensively the broader issues of parenting and child development.

In the current study, children of medical patient mothers differed significantly from children of depressed mothers on several indices. There was no evidence supporting the hypothesis that child adjustment difficulties are related to general maternal disability. These results stand in contrast to those obtained by Hirsch et al. (1985) for adolescents. This discrepancy may reflect the differences in the ages of children in the two studies. It may be, for example, that adolescent children are more susceptible to difficulties associated with parental physical illness than are younger children. Alternatively, the discrepancy may be due to exclusionary criteria used for the medical control groups in the two studies. In the current study, medical patients were excluded if they met criteria for a DSM-III diagnosis. In contrast, Hirsch et al. did not assess psychological adjustment in the medical group, and the observed child adjustment difficulties may be related to undiagnosed psychological problems in

medical control subjects is illustrated by Hammen et al.'s (1987) recent study. These investigators found that several of the medical patients reported a history of affective disturbance and that the children of these patients demonstrated some adjustment difficulties, but were not as impaired as were the children of depressed parents. It could be argued that by excluding from the sample medical patients who met criteria for a diagnosis of depression, the sample of medical patient women may represent less severe levels of medical disability. However the medical patient women in the current study were drawn from a larger sample of arthritic patients; pain ratings collected as part of another study indicated that these women experienced levels of pain that were comparable to pain levels experienced by other arthritic patients.

The data with respect to the stability of observed effects are less clear-cut. With the exception of self-image symptoms, all of the significant between-session effects involved the identification of fewer problems at the second session. Across groups, mothers rated their children as having fewer internalizing and externalizing problems at session two than one. Clinicians also observed fewer internalizing problems at session two, but found no session differences in externalizing problems, or in overall adjustment. The absence of group by session interactions in child adjustment data makes it unlikely that changes in child adjustment ratings were a function of maternal symptomatology. It is possible that both mothers and children became more guarded and less willing to acknowledge difficulties at the second session. Taken together, these findings suggest that despite some

session. Taken together, these findings suggest that despite some improvements, children's functioning does not return to normal levels as soon as their mothers' symptomatology is attenuated. This interpretation remains tentative, however, and awaits a longer term follow-up to determine whether there is simply a lag between maternal and child improvement, or whether residual difficulties persist.

Related to this issue, the chronicity of maternal impairment clearly warrants greater attention. In a recent study, Hammen et al. (1987) assessed adjustment in children whose mothers' depression predated the birth of the child. Clearly, these children had been exposed to chronic, or at least recurring maternal impairment. It will be important to assess child adjustment in relation to both prolonged maternal depression and to a first episode of depression in a previously well mother. It is likely that distinct patterns of child adjustment would be evident. For example, in the case of a first depressive episode, the mother's behavior might be markedly different from usual and the child might react intensely to the disruption in routine. Furthermore, a first depressive episode in a previously well mother might also be associated with other stressors with which the child would have to deal. A single-point assessment, therefore, would likely detect pronounced adjustment difficulties in children of first-episode depressed mothers. However, the literature on children's reactions to stress predicts that such children would demonstrate improved adjustment when normal family patterns are resumed (cf. Hetherington, 1984; Wallerstein, 1985). In contrast, children of

chronically depressed women might be expected to be evidence wide-ranging and enduring deficits in competence (Hammen et al., 1987).

The duration of maternal disturbance may also be related to factors that allow the child to cope successfully with maternal psychiatric disorder. Although parents have a pivotal role in children's interpersonal networks by providing affection, enhancing the child's sense of competence, and supplying instrumental aid, these functions may nevertheless be filled by other important figures in the child's life, such as grandparents, siblings, peers, and teachers (Furman & Buhrmeister, 1985). The availability of compensatory relationships on which the child can draw in the event of disturbed mother-child relationships requires further study. O'Grady and Metz (1987), for example, found that social support served as a stress-buffer for some high risk pre-schoolers.

Children's ability to establish satisfactory relationships with others is enhanced by successful resolution of attachment issues with the primary caretaker, usually the mother (Sroufe & Rutter, 1984). Children whose mothers were depressed or psychologically disturbed during their children's infancy may have experienced attachment difficulties (cf. Sameroff et al., 1984), and may lack the resources to draw on alternate relationships during times of maternal distress. Children whose mothers experience a first episode of psychiatric disturbance during their children's school-years may have an adequate foundation to permit them to receive support from others during the period of maternal distress. Furthermore, with respect to the maternal social functioning deficits discussed above, a mother with a long

history of affective disorder may have a restricted social network, allowing the child fewer opportunities to develop additional supportive relationships. Future research must consider the chronicity of the mother's impairment and its impact on the child's abilities to develop compensatory relationships. The nature of children's networks with fathers, siblings, extended family, teachers, and peers may be crucial factors that mediate the effects of family distress on child adjustment.

Mother-Child Interaction

Because depression has been associated with a tendency to be self-focused (e.g., Ingram et al., 1987), it was predicted that depressed mothers would spend less time in interaction with their children than would mothers in the other three groups. Contrary to prediction, mothers in the four groups did not differ in the proportion of time spent in joint activity with their children. Joint activity was similarly unaffected by either session or structure. These data do not provide support for the hypothesis that depressed mothers are self-focused and, consequently, are less involved with their children. In addition, no group differences were found for either maternal or child negativity and positivity. Mothers were found to be more negative in unstructured than in structured play. In contrast, children were rated as more positive in unstructured than in structured play. These data do not support either the maternal negativity or the difficult child hypotheses.

At first glance, the juxtaposition of heightened maternal negativity and increased child positivity in unstructured play seems

puzzling. This apparent contradiction may be explained in terms of the setting characteristics. Unstructured play was the first part of the videotaped interaction, preceding the structured play session. It is conceivable that children initially experienced the novel situation positively and were somewhat exuberant as they explored the room and toys. Mothers, on the other hand, may have experienced initial uneasiness, and may have been concerned to control their children and restrain their behavior. Consistent with this interpretation, across groups, mothers were observed to be more negative at session one than at session two.

In the discussion interaction, maternal behaviors did not differ in negativity or positivity across either group or session. Thus, once again, no support was provided for the hypothesis that depressed women behave more negatively towards their children. Children's behavior similarly showed no group effects, providing no support for the difficult child hypothesis. Children were observed to be more negative in session two than in session one. Just as the increased positivity in unstructured play may have reflected a novelty effect, the negativity in the second session may indicate that the situation became tedious to them.

Consistent with the direct observations, mothers did not differ across groups in their ratings of their enjoyment of, involvement in, or satisfaction with, the interaction. Mothers reported that their children's behavior during the interaction was similar to their usual behavior, and children also described their mothers as behaving in a manner similar to usual. Mothers and children in all groups reported

that they found the interaction enjoyable. Notably, there was a tendency for children of psychiatric patient mothers to report less enjoyment in the interaction than did children in the other two groups. This finding stands in contrast to the lack of group differences on children's responses to other paper and pencil measures (PPI and CDI). The trend for children of psychiatrically disturbed mothers to rate their interaction as less enjoyable may be associated with general dysphoria in these children, or may be specific to their interactions with their mothers. To assess the cross-person consistency of children's ratings of the enjoyability of interactions, they could be asked to rate interactions with various people, including peers, siblings, teachers, and extended family members.

In sum, the interactions between mothers and children in both play and discussion interactions revealed no differences among groups, nor was there an interaction between group and session. Interestingly, across groups, mothers and children described each other's behavior as being similar to normal. The absence of group differences in observable behavior is consistent with the results of Rodgers and Forehand (1983), who found no relation between maternal depression and either mother or child behavior. Similarly, Hops et al. (1987) found that children of depressed mothers did not behave differently than did children of nondepressed mothers, except in terms of displaying more irritated affect.

Other researchers, however, have observed group differences in child and mother behavior (e.g., Forehand, Lautenschlager, Faust, & Graziano, 1986; Hammen et al., 1986; Zahn-Waxler, Cummings, Ianotti, et

al., 1984). Zahn-Waxler and her colleagues found that young children of depressed mothers showed signs of hypersensitivity to the distress of others. Hammen and her colleagues found a correlation between maternal negativity and child self-criticism, but this was evident only in a conflict task. Forehand et al. (1986) reported a correlation between maternal depression and observed maternal behavior in a sample of clinic-referred children.

In the current study, however, moderately depressed women were observed to interact with their children in a manner similar to that of other mothers. The discrepancy between these findings and those of other studies gives rise to several alternative hypotheses. First, the lack of group differences may highlight important setting effects. It is possible, for example, that depression-related interactional dysfunctions are evident only in stressful encounters and that in relatively positive situations, depressed mothers and their children may behave in a manner similar to that of other mothers. In the studies by Zahn-Waxler et al. (1984) and Hammen et al. (1986), behavioral differences were evident in stressful situations (e.g., observing an argument, conflict-resolution task). In the present study, mothers and children rated the interaction as enjoyable. Informal feedback from mothers and children also indicated that subjects experienced the setting in a positive fashion, in that mothers were able to interact with only one child, in a setting with a variety of toys, with minimal conflicting demands. Comparisons across these studies suggest that mother-child difficulties may be evident only in stressful situations. If this is indeed the case, it would have

important implications for therapy, for it would indicate that mother-child dysfunctions were related not to global interpersonal skills deficits, but rather, to more situation-specific difficulties. The benefits of multiple home observations should be considered in future research. Additionally, mother-child interaction should be observed in a variety of settings in order to examine the situational specificity of observed patterns.

A second factor related to setting effects is that depressed mothers in this study may have avoided difficult situations. On average, depressed mothers cancelled at least one scheduled appointment. One depressed mother directly informed us that she was cancelling her appointment because her son was behaving badly. It is possible that mothers may have selected "positive" days and cancelled appointments on days when they were having difficulties. Again, studies using multiple home observations (e.g., Forehand et al. 1986; Hops et al. 1987) may reduce the likelihood of mothers cancelling appointments.

It is possible that interactions between disturbed mothers and their children involve discrepancies between different channels of communication (cf. Jacob & Lessin, 1982). For example, moderately distressed mothers may provide praise and suggestions to their children, and yet may deliver these messages in a strained or monotonous manner. Although the children may be accurate in their reports of their mothers' positive behaviors towards them, children may be affected by their mother's tone. For example, Hops et al. (1987) noted the importance of discriminating between dysphoric and hostile

negative behavior, suggesting that each may serve a different function in the family. Furthermore, in the study of schizophrenia, a considerable body of literature has established the importance of the family's affective style in predicting the adjustment of adolescents and young adults (e.g., Asarnow, Lewis, Doane, Goldstein, & Rodnick, 1982; Doane, Falloon, Goldstein, & Mintz, 1985; Doane, West, Goldstein, Rodnick, & Jones, 1981). Similar studies have not yet been conducted in relation to depression, nor have coding systems suitable for interactions with younger children been developed. Investigation of the affective style or emotional tone in families with a depressed parent could aid our understanding of how family interaction patterns may be related to child adjustment. Such affective style measures might include posture, facial expression, latency in responding, and tone of voice. Finally, the ecological validity of various social behaviors has not been established. It is possible that there may be low-frequency, highly salient behaviors that exert a significant impact on the interactions of depressed people with others (Coyne et al., 1987).

Conclusions and Implications

The present study examined the adjustment of depressed mothers and their children, as well as the interactions between these mothers and their children. The inclusion of additional control groups and the collection of data from multiple informants permitted an examination of alternate hypotheses that could account for early findings of adjustment difficulties in children of depressed mothers. By assessing mothers and children both early in the mothers' treatment and six to

eight weeks later, preliminary evaluations of the stability of such relationships could be conducted.

The results of the present study indicate that moderately depressed women experience a numb r of difficulties in psychological adjustment and in social functioning. The social functioning deficits were found to persist even when the depression had receded to mild levels. The depressed women in the current sample were more severely impaired than were women in the other groups, but many of their interpersonal dysfunctions were similar to those of women in the other two patient groups. They were most similar to the nondepressed psychiatric women. Despite these maternal difficulties, however, children of disturbed mothers did not differ from children of nondisturbed mothers with respect to their reporting of maternal negativity or positivity.

In the present study child adjustment was assessed by self-report, blind clinician rating, and maternal report, allowing the "child vulnerability" hypothesis to be pitted against the hypothesis that previous findings reflected "maternal negative response set". The findings lend clear support to the hypothesis that maternal psychological disturbance is associated with child adjustment difficulties. Maternal reports concur with those of clinicians in identifying increased symptomatology in the children of psychiatric patient women. Thus, the current findings provide no support for the hypothesis that maternal reports reflect distorted perceptions that are the product of a depression-related maternal negative response set.

The inclusion of groups of nondepressed psychiatric and medical patients allowed a comparison of various hypotheses regarding the specificity to depression of observed effects. The finding of considerable overlap between the children of depressed and nondepressed psychiatric patient mothers calls into question the specificity to depression of child adjustment difficulties. It seems equally plausible that the more intense difficulties in the children of depressed mothers may be due to the more severe impairment of their mothers rather than to maternal diagnostic status. Children of medical patient mothers were less impaired on many indices than were children of psychiatric patient mothers. The data suggest that maternal physical disability may be associated with child adjustment difficulties only when it is accompanied by maternal psychological distress (cf. Hammen et al., 1987).

Overall adjustment difficulties were evident at both sessions one and two, thereby lending support to the prolonged impairment hypothesis. However, a longer follow-up period is required to determine whether there is a lag between maternal and child improvement, or whether child difficulties endure. This information has important implications for the treatment of maternal psychiatric disturbance. For example, psychiatrically disturbed mothers might be more susceptible to relapse if they were unprepared to deal with continuing child difficulties. As the mother's symptomatology lifted, she might be discouraged by her child's continuing adjustment problems. If such a pattern could be anticipated, mothers could better prepare themselves to deal with their child's problems.

Having observed maternal and child adjustment difficulties, it is interesting to note the absence of dysfunctional mother-child interaction patterns. A comparison of the current findings with those of other studies suggests that interactional difficulties between distressed mothers and their children may be evident only in specific situations. It is suggested that dysfunctional interactional patterns may be reflected in terms of affective style. Were this the case, then therapeutic effort should be directed at enhancing maternal affective style, rather than in modifying specific behaviors.

Another factor warranting further attention is the availability of compensatory relationships for the child. In light of maternal social functioning deficits that persisted between sessions, it is possible that these children have fewer opportunities to develop satisfactory relationships outside the family. The nature of children's peer relationships and the extent of their contact with other adults such as extended family members requires further study.

Finally, certain limitations of this study should be noted. The modest sample size places limits on the power of the analyses. Furthermore, this sample represents only a select subset of psychiatric patient women in London, Ontario. Those patients whom we were permitted to approach, who agreed to take part in the study, and who were available at follow-up likely represent the less seriously impaired section of this population. Thus, the observed effects may be an underestimate of the true situation. Nevertheless, the present results do indicate that maternal psychological disturbance is associated with deficits in social functioning that endure even when the symptoms have remitted.

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Tables

Table 1.

Group Means and Standard Deviations for Demographic Variables

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Subject scores	M	SD	M	SD	M	SD	M	SD
Age	35.8	5.7	34.8	5.4	39.2	6.9	33.3	4.2
Educ	13.7	2.5	12.0	2.2	14.3	0.8	13.9	2.7
Income	25.3_{ab}	20.8	17.8_{a}	13.7	40.7_{b}	16.7	11.6_{a}	5.2
NChild	2.5	1.3	2.1	1.2	1.8	0.4	2.3	0.9
C age	9.1	1.9	9.1	2.2	9.3	2.3	9.4	1.9
Int	40.4_{a}	9.8	54.3_{b}	16.1	44.8_{ab}	3.3	44.7_{ab}	7.8

Note. Age = Mother's age; Educ = Mother's years of formal education; Income = Family annual income in thousands; NChild = Number of children in the family; C age = Age of child participating in study; Int = Interval between sessions in days. Means sharing subscripts are not significantly different at $p < .05$.

Table 2

Group Means and Standard Deviations on Measures of Maternal Depression and Psychological Distress

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Subject scores	M	SD	M	SD	M	SD	M	SD
HRSD	-	-	17.4_a	4.8	8.7_b	5.0	7.6_b	3.7
GAS	-	-	51.8_a	7.3	74.0_b	5.0	61.3_c	5.3
BDI1	3.9_a	3.4	20.6_b	10.6	8.6_a	4.7	9.6_a	6.8
BDI2	3.1^a	3.5	12.9_b	8.2	8.9_{ab}	6.6	6.6_a	5.0
BSI1	23.1	27.7	85.1	35.9	26.7	17.1	46.8	19.1
BSI2	13.7	15.1	63.1	37.9	28.6	26.9	31.7	21.0
BSIT	18.4_a	22.6	74.1_b	37.9	27.6_a	21.7	39.3^a	21.0

Note. HRSD = Hamilton Rating Scale for Depression score; GAS = Global Assessment Scale score; BDI = Beck Depression Inventory score; BSI = Brief Symptom Inventory score; 1 denotes session one score; 2 denotes session two score; T denotes score collapsed over sessions. Means sharing subscripts are not significantly different at $p < .05$.

Table 3

Group Means and Standard Deviations for Indices of Maternal Social Functioning

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scale scores	M	SD	M	SD	M	SD	M	SD
PSS1	16.1	8.4	27.3	5.8	19.0	7.1	23.1	3.8
PSS2	16.2	7.6	26.9	6.4	19.5	5.6	21.3	4.5
PSST	16.1_a	7.4	26.4_b	5.2	21.6_{ab}	7.4	22.4_b	4.4
Social1	4.6	2.3	2.3	2.0	3.3	1.0	3.1	2.6
Social2	4.7	1.8	2.7	1.9	3.2	1.3	3.2	2.2
SocialT	4.6_a	1.8	2.5_b	1.6	3.3_{ab}	1.0	3.2_{ab}	2.2
Family1	5.6	2.3	3.6	1.8	4.8	2.0	4.3	2.7
Family2	5.5	2.0	3.9	1.9	4.3	2.1	4.0	2.2
FamilyT	5.5_a	1.8	3.7_b	1.4	4.5_{ab}	1.8	4.2_{ab}	2.3
Network1	19.5	12.1	11.9	7.4	9.3	3.8	20.8	15.6
Network2	17.9	8.9	12.3	6.2	9.2	2.7	17.1	11.4
NetworkT	18.7_a	9.0	12.1_b	5.1	9.2_b	3.0	18.9_{ab}	11.3

Table 3 (continued)

Scale scores	Group: Nondepressed community M	SD	Depressed psychiatric M	SD	Nondepressed medical M	SD	Nondepressed psychiatric M	SD
Rel1.	13.4	11.5	4.7	3.2	11.8	6.3	8.8	2.2
Rel2.	10.7	7.0	5.6	6.1	12.8	6.5	9.0	5.3
RelT.	12.1_a	8.6	5.6_b	4.0	12.3_{ab}	6.4	8.9_{ab}	3.1
Quality1	22.4	3.0	17.7	3.9	24.0	2.9	20.2	3.1
Quality2	21.8	4.9	17.9	4.4	23.1	3.5	20.3	3.3
QualityT	22.1_a	3.7	17.8_b	3.6	23.6_a	2.9	20.3_{ab}	3.1
Argue1	2.3	2.1	4.6	1.9	2.7	2.3	3.1	1.4
Argue2	2.3	1.9	4.6	2.0	2.8	1.3	2.8	1.8
ArgueT	2.3_a	1.9	4.6_b	1.8	2.8_{ab}	1.7	2.9_a	1.6

Note. PSS = Perceived Stress Scale total score; Social = Social activities; Family = Family activities; Network = Network contacts; Rel = Number of close relationships; Quality = Qualityof significant relationship; Argue = Number of issues over which there are arguments in family. 1 denotes session one score; 2 denotes session two score; T denotes scores are collapsed over sessions. Subscripts are applicable only to scores collapsed over sessions. Means sharing subscripts are not significantly different at $p < .05$.

Table 4

Group Means and Standard Deviations for Ratings of Children's Internalizing Problems

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Subscales	M	SD	M	SD	M	SD	M	SD
Int1	53.5	9.7	62.5	10.8	49.7	6.8	57.7	5.2
Int2	49.7	9.6	58.1	10.9	46.6	7.4	55.3	8.8
IntT	51.6_a	9.1	60.3_b	10.5	48.1_a	6.8	56.6_{ab}	6.3
Fears1	0.7	1.3	1.3	1.5	1.1	1.2	1.7	1.7
Fears2	0.2	0.5	1.2	1.6	0.3	0.5	0.5	0.7
FearsT	0.5_a	1.0	1.2_b	1.5	0.7_{ab}	1.0	1.1_{ab}	1.4
Worry1	1.5	1.3	2.5	2.0	1.6	1.3	1.8	1.8
Worry2	1.2	1.2	1.9	2.3	1.3	1.1	1.4	1.3
WorryT	1.4	1.2	2.2	2.1	1.4	1.1	1.6	1.5
Selfim1	0.9	1.1	1.7	0.9	0.9	0.7	2.2	1.8
Selfim2	1.5	1.3	1.9	1.2	1.3	1.3	2.7	1.6
SelfimT	1.2_a	1.2	1.8_{ab}	1.1	1.1_{ab}	1.1	2.3_b	1.7

Table 4 (continued)

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Subscales	M	SD	M	SD	M	SD	M	SD
Mood1	0.5	1.1	2.4	2.2	1.0	1.5	1.6	2.1
Mood2	0.9	1.1	1.7	1.9	0.1	0.4	1.3	2.1
MoodT	0.4_a	0.9	2.1_b	2.1	0.6_a	1.2	1.5_{ab}	2.1
Somat1	1.3	1.3	2.9	2.1	1.7	1.9	3.0	2.4
Somat2	0.9	1.1	2.5	3.0	1.7	2.1	1.7	2.1
SomatT	1.1_a	1.2	2.7_b	2.5	1.7_a	1.9	2.4_{ab}	2.3

Note. Int = CBCL Internalizing T score; Fear= CAS fears and anxieties; Worries = CAS worries and concerns; Selfim = CAS self image; Somat = CAS somatic complaints. 1 denotes session one score, 2 denotes session 2 score; T denotes scores collapsed across sessions. Subscripts are applicable only to scores collapsed over sessions. Means sharing subscripts are not significantly different at $p < .05$.

Table 5

Group Means and Standard Deviations for Ratings of Child Externalizing Problems

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
CBCL1	52.0	9.0	60.3	11.1	49.1	10.0	55.9	7.3
CBCL2	49.1	8.4	55.9	12.2	48.3	10.5	50.8	9.7
CBCLT	50.6	8.1	58.1	11.5	48.7	10.1	53.3	6.9
CAS1	1.0	1.1	2.6	2.2	1.1	1.7	2.5	1.7
CAS2	1.3	1.5	2.3	2.5	0.8	0.7	1.8	1.5
CAST	1.2	1.3	2.5	2.3	1.0	1.2	2.2	1.7

Note. CBCL = Externalizing T score on the CBCL; CAS = Number of acting-out symptoms on the CAS; 1 denotes session one score; two denotes session two score; T denotes scores are collapsed across sessions.

Table 6

Group Means and Standard Deviations for Ratings of Children's Social Competence

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
CBCLA1	51.4	5.1	49.7	4.3	53.4	2.6	52.5	3.7
CBCLA2	50.3	5.4	48.3	7.7	53.9	1.6	51.4	4.5
CBCLAT	50.8	5.2	49.0	6.1	53.6	2.1	52.0	4.1
CBCLS1	48.7	7.7	44.0	8.8	51.7	4.9	49.6	5.6
CBCLS2	48.1	7.6	41.2	12.7	52.6	2.7	46.7	9.1
CBCLST	48.4	7.6	42.6	10.7	52.1	3.8	48.1	7.4
CBCLSC1	50.4	5.6	45.8	8.4	54.7	0.8	47.0	6.6
CBCLSC2	50.1	5.9	45.5	7.3	53.9	3.0	47.9	6.0
CBCLSCT	50.3	5.7	45.6	7.7	54.3	2.2	47.4	6.2

Table 6 (continued)

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
CASA1	0.2	0.5	0.1	0.3	0.3	0.5	0.2	0.4
CASA2	0.2	0.5	0.5	0.7	0.1	0.1	0.2	0.6
CASAT	0.2	0.5	0.3	0.6	0.1	0.4	0.2	0.5
CASS1	0.5	0.8	1.1	1.4	0.1	0.1	1.5	2.0
CASS2	0.4	0.7	0.8	1.0	0.4	0.7	0.6	1.1
CASST	0.4	0.8	1.0	1.2	0.2	0.6	1.1	1.6
CASSC1	0.8	1.3	1.5	1.9	0.7	0.9	1.7	1.2
CASSC2	1.0	1.4	1.7	3.3	0.7	1.2	1.5	1.8
CASSCT	0.9	1.3	1.6	2.6	0.7	1.1	1.6	1.5

Note. CBCL = Child Behavior Checklist; CAS = Child Assessment SCale; A = Activities; S = Social involvement and friends; SC = School. 1 denotes session one; 2 denotes session two; T denotes scores collapsed across sessions.

Table 7

Group Means and Standard Deviations for Ratings of Child Depression by Children, Mothers, and Clinicians

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
CDI1	3.4	2.8	5.0	3.4	3.1	2.0	5.5	4.8
CDI2	2.2	2.7	4.0	3.2	1.0	1.1	4.7	6.4
CDIT	2.8	2.5	4.3	3.1	2.1	1.1	5.1	5.2
MCDI1	3.9	3.8	8.1	6.3	2.1	1.7	7.2	5.7
MCDI2	2.9	3.8	6.5	5.1	3.9	5.3	6.3	3.9
MCDIT	3.4_a	3.2	7.3_b	5.0	3.0_{ab}	3.1	6.8_b	4.2

Table 7 (continued)

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
CASMOOD1	0.5	1.0	2.4	2.2	1.0	1.5	1.6	2.2
CASMOOD2	0.3	0.7	1.7	2.0	0.1	0.4	1.3	2.1
CASMOODT	0.4_a	0.8	2.1_b	1.6	0.6_a	0.9	1.4_{ab}	1.8
CASEMOT1	0.1	0.2	0.5	0.6	0.1	0.4	0.3	0.5
CASEMOT2	0.1	0.2	0.4	0.7	0.1	0.4	0.2	0.4
CASEMOTT	0.1_a	0.1	0.5_b	0.5	0.1_{ab}	0.2	0.3_{ab}	0.3

Note. CDI = Score on Children's Depression Inventory; MCDI = Score on Children's Depression inventory completed by mother; CASMOOD = Symptom score for CAS; subscale for mood disturbance; CASEMOT = Symptom score for clinician observations of quality of child's emotional expression during interview. 1 denotes session one; 2 denotes session two; T denotes scores are collapsed across sessions. Subscripts are applicable only to scores collapsed over sessions. Means sharing subscripts are not significantly different at $p < .05$.

Table 8

Group Means and Standard Deviations for Proportions of Positive and Negative Behaviors in Play Interaction

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
MOTHER								
+ UN	.32	.28	.38	.33	.36.	.36	.33	.27
- UN	.19	.21	.13	.17	.27	.22	.18	.20
+ ST	.44	.38	.41	.28	.37	.21	.38	.30
- ST	.15	.15	.10	.15	.15	.15	.11	.09
CHILD								
+ UN	.30	.34	.29	.24	.35	.19	.39	.32
- UN	.17	.16	.16	.15	.28	.25	.16	.16
+ ST	.19	.22	.14	.13	.26	.34	.21	.20
-ST	.20	.18	.24	.26	.41	.37	.20	.19

Note. + denotes positive codes; - denotes negative codes; UN denotes unstructured activity; ST denotes structured activity.

Table 9

Group Means and Standard Deviations for Responses to the Post-Interaction Questionnaire (PIQ)

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
ENJM1	6.8	1.5	6.2	1.8	6.8	2.0	5.9	1.6
ENJM2	6.6	1.6	6.1	2.1	6.3	1.6	5.7	2.1
ENJMT	6.7	1.5	6.2	1.9	6.6	1.8	5.8	1.8
INVM1	7.1	1.1	6.1	1.9	7.7	0.5	6.6	1.5
INVM2	7.1	1.3	6.4	2.2	5.8	1.2	6.3	1.3
INVMT	7.1	1.0	6.3	1.8	6.8	0.7	6.4	1.3
SATM1	6.2	2.0	5.5	1.9	7.3	1.2	5.6	1.5
SATM2	6.2	1.9	5.7	2.0	5.3	2.1	6.7	1.1
SATMT	6.2	1.7	5.6	1.7	6.3	1.4	6.1	0.9
REPM1	5.0	1.6	5.7	1.9	5.5	1.6	6.0	1.8
REPM2	5.4	1.7	5.6	1.2	4.5	1.4	5.3	1.6
REPMT	5.2	1.6	5.7	1.6	5.0	1.5	5.7	1.7

Table 9 (continued)

	Group							
	Nondepressed community		Depressed psychiatric		Nondepressed medical		Nondepressed psychiatric	
Scores	M	SD	M	SD	M	SD	M	SD
ENJC1	7.3	1.4	5.9	1.8	7.3	1.0	7.0	1.2
ENJC2	7.3	1.2	6.6.	1.5	7.5	0.8	7.0	1.2
ENJCT	7.3	1.3	6.3	1.6	7.4	0.9	7.0	1.2
INVC1	7.1	1.5	6.2	1.5	7.5	0.5	7.7.	0.9
INVC2	7.1	1.3	7.9	1.2	6.8	1.1	7.0	1.2
INVCT	7.1	1.4	6.7	1.4	7.2	1.0	7.4	1.1
REPC1	5.7	1.6	6.4	1.9	5.7	1.2	6.6	1.5
REPC2	6.0	1.3	5.9	2.2	5.0	0.1	6.9	1.3
REPCT	5.9	1.4	6.2	2.0	5.3	0.9	6.8	1.4

Note. ENJ = Enjoyment; INV = Involvement; SAT = Satisfaction; REP = Representativeness; M = Mothers' rating; C = Children's rating; 1 = session one; 2 =session two; T denotes scores collapsed across sessions.

Appendix A

HAMILTON RATING SCALE FOR DEPRESSION

HAMILTON RATING SCALE FOR DEPRESSION

Subject #___

1. Depressed mood: Gloomy attitude. Pessimism about the future
Feeling of sadness; Tendency to weep.
Sadness, etc.....1
Occasional weeping.....2
Frequent weeping.....3
Extreme symptoms.....4

2. Guilt: Self-reproach; Feels has let people down 1
Ideas of guilt.....2
Present illness is a punishment.....3
Delusions of guilt.....
Hallucinations of guilt.....4

3. Suicide: Feels life is not worth livi[illegible].....1
Wishes she were dead.....2
Suicidal ideas.....3
Attempts at suicide.....4

4. Insomnia, initial: Difficulty falling asleep 0-2

5. Insomnia, middle: Restless and disturbed during the night 0-2

6. Insomnia, terminal: Waking in the early hours of the morning, unable to get back to sleep. 0-2

7. Work and interests: Feelings of incapacity.....1
Listlessness, indecision & vacillation.2
Loss of interest in hobbies.....
Decreased social activities.....3
Unable to work.....4

8. Retardation: Slowness of thought, speech & activity
Apathy, stupor
Slight retardation at interview.....1
Obvious retardation at interview.....2
Retardation makes interview difficult..3
Complete stupor.....4

9. Agitation: Restlessness associated with anxiety...1
Playing with hands, hair, etc...
Hand-wringing, nail-biting.....2

/...2

10. Anxiety, psychic: Tension & irritability.....1
Worrying about minor matters.....2
Apprehensive attitude.....3
Fears.....4

11. Anxiety, somatic: Gastrointestinal: wind, indigestion
Cardiovascular: palpitations, headache
Respiratory
Genito-urinary
0-4

12. Gastrointestinal: Loss of appetite.....1
Heavy feelings in abdomen.....
Constipation requiring laxatives.....2
Requires encouragement to eat.....

13. General somatic symptoms: Heaviness in limbs
Diffuse backache
Loss of energy, fatiguability 0-2

14. Genital symptoms: Loss of libido
Menstrual disturbance 0-2

15. Hypochondriasis: Self-absorption (bodily).....1
Preoccupation with health.....2
Frequent complaints, requests help.....3
Hypochondriacal delusions.....4

16. Loss of weight: Probable weight loss.....1
2 lb a week or 10 lb a year
(when not dieting).....2

17. Cognitive difficulties: Memory problems
Poor concentration
Distractibility 0-2

GRADING:

0	Absent	0	Absent
1	Mild or trivial	1	Slight or doubtful
2	Moderate	2	Clearly present
3	Moderate		
4	Severe		

Appendix B

GLOBAL ASSESSMENT SCALE

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Global Assessment Scale (GAS)

Robert L. Spitzer, M.D., Miriam Gibbon, M.S.W., Jean Endicott, Ph. D.

Rate the subject's lowest level of functioning in the last week by selecting the lowest range which describes his functioning on a hypothetical continuum of mental health-illness. For example, a subject whose "behavior is considerably influenced by delusions" (range 21-30), should be given a rating in that range even though he has "major impairment in several areas" (range 31-40). Use intermediary levels when appropriate (e.g., 35, 58, 62). Rate actual functioning independent of whether or not subject is receiving and may be helped by medication or some other form of treatment.

Name of Patient _____ ID No _____ Group Code _____

Admission Date _____ Date of Rating _____ Rater _____

GAS Rating _____

100 | 91 Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his warmth and integrity. No Symptoms.

90 | 81 Good functioning in all areas, many interests, socially effective, generally satisfied with life. There may or may not be transient symptoms and "everyday" worries that only occasionally get out of hand.

80 | 71 No more than slight impairment in functioning, varying degrees of "everyday" worries and problems that sometimes get out of hand. Minimal symptoms may or may not be present.

70 | 61 Some mild symptoms (e.g., depressive mood and mild insomnia) OR some difficulty in several areas of functioning, but generally functioning pretty well, has some meaningful interpersonal relationships and most untrained people would not consider him "sick."

60 | 51 Moderate symptoms OR generally functioning with some difficulty (e.g., few friends and flat affect, depressed mood and pathological self-doubt, euphoric mood and pressure of speech, moderately severe antisocial behavior).

50 | 41 Any serious symptomatology or impairment in functioning that most clinicians would think obviously requires treatment or attention (e.g., suicidal preoccupation or gesture, severe obsessional rituals, frequent anxiety attacks, serious antisocial behavior, compulsive drinking, mild but definite manic syndrome).

40 | 31 Major impairment in several areas, such as work, family relations, judgment, thinking or mood (e.g., depressed woman avoids friends, neglects family, unable to do housework), OR some impairment in reality testing or communication (e.g., speech is at times obscure, illogical or irrelevant), OR single suicide attempt.

30 | 21 Unable to function in almost all areas (e.g., stays in bed all day), OR behavior is considerably influenced by either delusions or hallucinations OR serious impairment in communication (e.g., sometimes incoherent or unresponsive or judgment (e.g., acts grossly inappropriately).

20 | 11 Needs some supervision to prevent hurting self or others, or to maintain minimal personal hygiene (e.g., repeated suicide attempts, frequently violent, manic excitement, smears feces), OR gross impairment in communication (e.g., largely incoherent or mute).

10 | 1 Needs constant supervision for several days to prevent hurting self or others (e.g., requires an intensive care unit with special observation by staff), makes no attempt to maintain minimal personal hygiene, or serious suicide act with clear intent and expectation of death.

Appendix C

BECK DEPRESSION INVENTORY

BECK DEPRESSION INVENTORY

Subject # --- Session ---

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which describes the way you have been feeeling in th PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad:
   1 I feel sad.
   2 I am sad all the time and I can't snap out of it.
   3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
   1 I feel discouraged about the future.
   2 I feel I have nothing to look forward to.
   3 I feel the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
   1 I feel as if I have failed more than the average person.
   2 As I look back on my life, all I can see is a lot of failures.
   3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
   1 I don't enjoy things they way I used to.
   2 I don't get real satisfaction out of anything anymore.
   3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty.
   1 I feel guilty a good part of the time.
   2 I feel guilty most of the time.
   3 I feel guilty all of the time.

6. 0 I don't feel like I am being punished.
   1 I feel I may be punished.
   2 I expect to be punished.
   3 I feel I am being punished.

7. 0 I don't feel disappointed in myself.
   1 I am disapppointed in myself.
   2 I am disgusted with myself.
   3 I hate myself.

/...2

8. 0 I don't feel I am any worse than anybody else.
   1 I am critical of myself for my weaknesses or mistakes.
   2 I blame myself all the time for my faults.
   3 I blame myself for everything bad that happens.

9. 0 I don't have any thoughts of killing myself.
   1 I have thoughts of killing myself, but I would not carry them out.
   2 I would like to kill myself.
   3 I would kill myself if I had the chance.

10.0 I don't cry anymore now than I used to.
   1 I cry now more than I used to.
   2 I cry all the time now.
   3 I used to be able to cry, but now I can't cry even though I want to.

11.0 I am now more irritated now than I ever am.
   1 I get annoyed or irritated more easily than I used to.
   2 I feel irritated all the time now.
   3 I don't get irritated at all by things that used to irritate me.

12.0 I have not lost interest in other people.
   1 I am less interested in other people than I used to be.
   2 I have lost most of my interest in other people.
   3 I have lost all my interest in other people.

13.0 I make decisions about as well as I ever could.
   1 I put off making decisions more than I used to.
   2 I have greater difficulty in making decisions than before.
   3 I can't make decisions at all anymore.

14.0 I don't feel I look any worse than I used to.
   1 I am worried that I am looking old or unattractive.
   2 I feel there are permanent changes in my appearance that make me look unattractive.
   3 I believe I look ugly.

15.0 I can work about as well as before.
   1 It takes an extra push to get started at doing something.
   2 I have to push myself very hard to do anything.
   3 I can't do any work at all.

/...3

16.0 I can sleep as well as I used to.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than I used to and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17.0 I don't get more tired than I used to.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18.0 My appetite is now worse than usual.
1 My appetite is not as good now as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19.0 I haven't lost much weight, if any lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.
I am purposely trying to lose weight by eating less. Yes_No_

20.0 I am no more worried about my physical health than usual.
1 I am worried about physical problems such as aches and pains, or upset stomach, or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems, that I cannot think about anything else.

21.0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

Appendix D

BRIEF SYMPTOM INVENTORY

BSI

Name _____ Patient No. _____ Technician _____

Location: _____ Visit No: _____ Mode S R _____ Nor ____

Age: _____ Sex: M ____ F ____ Date _____ Remarks _____

INSTRUCTIONS

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select one of the numbered descriptors that best describes HOW MUCH DISCOMFORT THAT PROBLEM HAS CAUSED YOU DURING THE PAST 4 weeks INCLUDING TODAY. Place that number in the open block to the right of the problem. Do not skip any items, and print your number clearly. If you change your mind, erase your first number completely. Read the example below before beginning, and if you have any questions please ask the technician.

EXAMPLE

HOW MUCH WERE YOU DISTRESSED BY.

Ex. Body Aches . Ex [3]

Descriptors
0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

HOW MUCH WERE YOU DISTRESSED BY.

Descriptors
0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

HOW MUCH WERE YOU DISTRESSED BY.

1 Nervousness or shakiness inside
2 Faintness or dizziness
3 The idea that someone else can control your thoughts
4 Feeling others are to blame for most of your troubles
5 Trouble remembering things
6 Feeling easily annoyed or irritated
7 Pains in heart or chest
8 Feeling afraid in open spaces
9 Thoughts of ending your life
10 Feeling that most people cannot be trusted
11 Poor appetite
12 Suddenly scared for no reason
13 Temper outbursts that you could not control
14 Feeling lonely even when you are with people
15 Feeling blocked in getting things done
16 Feeling lonely
17 Feeling blue
18 Feeling no interest in things
19 Feeling fearful
20 Your feelings being easily hurt
21 Feeling that people are unfriendly or dislike you
22 Feeling inferior to others
23 Nausea or upset stomach
24 Feeling that you are watched or talked about by others
25 Trouble falling asleep
26 Having to check and double check what you do
27 Difficulty making decisions
28 Feeling afraid to travel on buses, subways or trains
29 Trouble getting your breath
30 Hot or cold spells
31 Having to avoid certain things, places or activities because they frighten you
32 Your mind going blank
33 Numbness or tingling in parts of your body
34 The idea that you should be punished for your sins
35 Feeling hopeless about the future
36 Trouble concentrating
37 Feeling weak in parts of your body
38 Feeling tense or keyed up
39 Thoughts of death or dying
40 Having urges to beat, injure, or harm someone
41 Having urges to break or smash things
42 Feeling very self conscious with others
43 Feeling uneasy in crowds
44 Never feeling close to another person
45 Spells of terror or panic
46 Getting into frequent arguments
47 Feeling nervous when you are left alone
48 Others not giving you proper credit for your achievements
49 Feeling so restless you couldn't sit still
50 Feelings of worthlessness
51 Feeling that people will take advantage of you if you let them
52 Feelings of guilt
53 The idea that something is wrong with your mind

Appendix E

PERCEIVED STRESS SCALE

PERCEIVED STRESS SCALE

Subject # ___ Session ___

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate <u>how often</u> you felt or thought in a certain way. Although some of the questions are similar, there are differences between them, and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question, choose from the following alternatives:

0 = never
1 = almost never
2 = sometimes
3 = fairly often
4 = very often

1. In the last month, how often have you been upset because something happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous or "stressed"?	0	1	2	3	4
4. In the last month how often have you dealt successfully with irritating life hassles?	0	1	2	3	4
5. In the last month, how often have you felt that you were coping effectively with important changes that were occurring in your life?	0	1	2	3	4
6. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
7. In the last month, how often have you felt that things were going your way?	0	1	2	3	4

/...2

8. In the last month, how often have you found that you could not cope	0	1	2	3	4
9. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
10. In the last month, how often have you felt you were on top of things?	0	1	2	3	4
11. In the last month, how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
12. In the last month, how often have you found yourself thinking about things that you had to accomplish?	0	1	2	3	4
13. In the last month, how often have you been able to control the way you spend your time?	0	1	2	3	4
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Appendix F

INDICES FROM THE HEALTH AND DAILY LIVING FORM

HEALTH AND DAILY LIVING FORM INDICES

1. About how many friends do you have, people you know more than just casually? _____friends

2. How many close friends do you have, people you feel at ease with and can talk to about personal problems? _____friends

3. How many people do you know from whom you can expect real help in times of trouble? _____people

4. <u>During the last month</u> have you done or attended any of these activities? Answer TWICE for each activity:

	Together with another family member		Together with one or more friends	
	Yes	No	Yes	No
a) athletic event.....				
b) boardgames.....				
c) card game.....				
d) concert, opera, museum.....				
e) had a long talk.....				
f) helped out on some project.				
g) hike or long walk.....				
h) hunting or fishing.....				
i) club/organization meeting..				
j) party.....				
k) picnic.....				
l) swimming or tennis.....				

/...2

5) During the last month, how often did you get together with one or more friends?

Friends visited at your home ____times

Got together with friends outside your home ____times

6) During the last month, how often did you visit with relatives?

Relatives visited at your home ____times

Visited with relatives outside your home ____times

7) Do any of the following topics often cause disagreements in your family?

Yes	No		Yes	No	
		Friends			Helping with chores
		Relatives			Sex
		Driving habits			Drugs
		Politics			Alcohol
		Money			Cigarette smoking
		Use of the car			Discipline
		Watching TV			Major purchases

8) Think of a person who is important to you. Indicate their relationship to you.

Relationship: ___spouse ___parent ___child ___other

How often do the two of you:	1	2	3	4	5
calmly discuss something together.....					
have a stimulating exchange of ideas..					
disagree about something important...					
become critical and disapproving.....					
have a good time together.....					
become angry.....					

1 = never; 2 = seldom; 3 = sometimes;
4 = fairly often; 5 = often.

Appendix G

PARENT PERCEPTION INVENTORY

PARENT PERCEPTION INVENTORY

Read the child the following directions:

I'D LIKE TO KNOW HOW MUCH YOU THINK YOUR MOM DOES CERTAIN THINGS AT HOME. I WON'T TALK TO YOUR MOM ABOUT WHAT YOU TELL ME, SO PLEASE TELL ME WHAT YOU REALLY THINK.

LET'S TRY A PRACTICE QUESTION:
HOW OFTEN DOES YOUR MOM CLEAN THE HOUSE?
DOES SHE CLEAN IT NEVER, SOMETIMES, PRETTY MUCH OR A LOT?

(Point to each word on the answer sheet as you say it)

MAKE A CIRCLE ROUND THE WORD THAT TELLS HOW OFTEN SHE CLEANS THE HOUSE.

(After child has circled his/her answer, check to make sure s/he understands the task.)

SO YOUR MOM CLEANS THE HOUSE (child's answer)?

Give examples until you're sure child understands the concept.

NOW WE'LL START.

For each concept:
a) State item number.
b) Ask HOW OFTEN DOES ~~YOUR MOM~~ ...?
c) Keep track to make sure child has not skipped a line.

1. THANK YOU FOR DOING THINGS. TELL YOU WHEN SHE LIKES WHAT YOU DID. GIVE YOU SOMETHING OR LET YOU DO SOMETHING SPECIAL WHEN YOU'RE GOOD.

2. TAKE AWAY THINGS WHEN YOU MISBEHAVE -- LIKE NOT LETTING YOU WATCH TV, OR RIDE YOUR BIKE, OR STAY UP LATE OR EAT DESSERT.

3. TALK TO YOU WHEN YOU FEEL BAD AND HELP YOU TO FEEL BETTER. HELP YOU WITH YOUR PROBLEMS. COMFORT YOU.

4. TELL YOU YOU'RE NO GOOD. TELL YOU THAT YOU MESSED UP OR DIDN'T DO SOMETHING RIGHT. CRITICIZE YOU.

5. TALK TO YOU, LISTEN TO YOU. HAVE A GOOD CONVERSATION WITH YOU.

6. ORDER YOU AROUND. TELL YOU WHAT TO DO. GIVE COMMANDS.

/...2

7. LET YOU HELP DECIDE WHAT TO DO. LET YOU HELP FIGURE OUT HOW TO SOLVE PROBLEMS.

8. SPANK YOU. SLAP YOU. HIT YOU.

9. PLAY WITH YOU. SPEND TIME WITH YOU. DO THINGS WITH YOU THAT YOU LIKE TO DO.

10. GET MAD AT YOU. YELL AT YOU. SHOUT AT YOU.

11. SAY NICE THINGS TO YOU. TELL YOU THAT YOU'RE A GOOD GIRL OR BOY. COMPLIMENT YOU.

12. THREATEN YOU. TELL YOU THAT YOU'LL GET INTO TROUBLE IF YOU DO SOMETHING WRONG. WARN YOU.

13. LET YOU DO WHAT OTHER KIDS YOUR AGE DO. LET YOU DO THINGS ON YOUR OWN.

14. SEND YOU TO YOUR ROOM OR A CORNER WHEN YOU DO SOMETHING WRONG.

15. HELP YOU WHEN YOU NEED IT (WITH A HARD JOB, WITH HOMEWORK, WHEN YOU CAN'T DO SOMETHING BY YOURSELF).

16. NAG YOU. TELL YOU WHAT TO DO OVER AND OVER AGAIN. KEEP AFTER YOU TO DO THINGS.

17. HUG YOU. KISS YOU. TICKLE YOU. SMILE AT YOU.

18. IGNORE YOU. NOT PAY ANY ATTENTION TO YOU. NOT TALK TO YOU OR LISTEN TO YOU.

Appendix H

CHILD ASSESSMENT SCHEDULE--ANSWER SHEET

CHILD ASSESSMENT SCHEDULE SUMMARY SHEET

Subject # ____ Session ____ Date____ Interviewer____

Symptom scores:

A. School
B. Friends
C. Activities
D. Family
E. Fears and anxieties
F. Worries and concerns
G. Self-image
H. Mood
I. Physical complaints
J. Acting-out
K. Reality testing

Observations

L. Insight
M. Grooming
N. Co-ordination
O. Activity level-attention span, impulsivity
P. Cognitive abilities
Q. Verbal communication
R. Emotional expression
S. Physical movements
R. Emotional expression
T. Interpersonal interaction

GAS:
DSM-III:

Appendix I

GLOBAL ASSESSMENT SCALE FOR CHILDREN

GLOBAL ASSESSMENT SCALE FOR CHILDREN

91-100
Superior functioning in many areas, good functioning in all areas.

81-90
Good functioning in all areas. Fundamentally secure in family, school; and with peers so that situational responses are transitory, non-symptomatic (i.e., acknowledged and managed by child)and do not interfere with functioning.

71-80
Slight interference with functioning in family, school or with peers. Healthy responses to situational crises may produce symptoms, but symptoms are minimal, brief, and only slightly interfere with functioning.

61-70
Some difficulty in functioning in family, school, or with peers due to normal responses to developmental crises (e.g., age-appropriate phobias, separation anxiety) but these symptoms do not seriously impair functioning. The symptomatic behavior would not be sufficiently intense to label the child as disturbed.

51-60
Moderate difficulty in functioning in family, school, or with peers, due to mild symptoms (mild adjustment reactions, reactive disturbance, mild peer relation problems, mild psychosomatic problems, mild habit or conduct disturbances, bed-wetting, neurotic traits). Functioning may be constricted, but still appropriate.

41-50
Clear interference in functioning in family, school, or with peers due to serious impairments in personality development (e.g., personality disorders, oppositional child, impulse-ridden child, poorly socialized child). Most clinicians would agree that these symptoms represent disturbance.

0-40
Major impairment warranting intensive supervision and treatment. None of the children in the study fell within this range, therefore full descriptions are not provided.

Appendix J

CHILDREN'S DEPRESSION INVENTORY

CHILD VERSION

CD INVENTORY

NAME: C

DATE: _____

CASE NO.: [ ][ ] [ ][ ][ ]

INTERVIEW NO.: [ ][ ]

FORM NO.: [0][3]

KIDS SOMETIMES HAVE DIFFERENT FEELINGS AND IDEAS.

THIS FORM LISTS THE FEELINGS AND IDEAS IN GROUPS. FROM EACH GROUP, PICK ONE SENTENCE THAT DESCRIBES YOU BEST FOR THE PAST TWO WEEKS.

AFTER YOU PICK A SENTENCE FROM THE FIRST GROUP, GO ON TO THE NEXT GROUP.

THERE IS NO RIGHT ANSWER OR WRONG ANSWER. JUST PICK THE SENTENCE THAT BEST DESCRIBES THE WAY YOU HAVE BEEN RECENTLY. PUT A MARK LIKE THIS ✓ NEXT TO YOUR ANSWER. PUT THE MARK IN THE BOX NEXT TO THE SENTENCE THAT YOU PICK.

HERE IS AN EXAMPLE OF HOW THIS FORM WORKS. TRY IT. PUT A MARK NEXT TO THE SENTENCE THAT DESCRIBES YOU BEST.

EXAMPLE:

- [ ] I READ BOOKS ALL THE TIME
- [ ] I READ BOOKS ONCE IN A WHILE
- [ ] I NEVER READ BOOKS

REMEMBER, PICK OUT THE SENTENCES THAT DESCRIBE YOUR FEELINGS AND IDEAS IN THE PAST TWO WEEKS.

1. ☐ I AM SAD ONCE IN A WHILE
   ☐ I AM SAD MANY TIMES
   ☐ I AM SAD ALL THE TIME

2. ☐ NOTHING WILL EVER WORK OUT FOR ME
   ☐ I AM NOT SURE IF THINGS WILL WORK OUT FOR ME
   ☐ THINGS WILL WORK OUT FOR ME O.K.

3. ☐ I DO MOST THINGS O.K.
   ☐ I DO MANY THINGS WRONG
   ☐ I DO EVERYTHING WRONG

4. ☐ I HAVE FUN IN MANY THINGS
   ☐ I HAVE FUN IN SOME THINGS
   ☐ NOTHING IS FUN AT ALL

5. ☐ I AM BAD ALL THE TIME
   ☐ I AM BAD MANY TIMES
   ☐ I AM BAD ONCE IN A WHILE

6. ☐ I THINK ABOUT BAD THINGS HAPPENING TO ME ONCE IN A WHILE
   ☐ I WORRY THAT BAD THINGS WILL HAPPEN TO ME
   ☐ I AM SURE THAT TERRIBLE THINGS WILL HAPPEN TO ME

7. ☐ I HATE MYSELF
   ☐ I DO NOT LIKE MYSELF
   ☐ I LIKE MYSELF

8. ☐ ALL BAD THINGS ARE MY FAULT
☐ MANY BAD THINGS ARE MY FAULT
☐ BAD THINGS ARE NOT USUALLY MY FAULT

9. ☐ I DO NOT THINK ABOUT KILLING MYSELF
☐ I THINK ABOUT KILLING MYSELF BUT I WOULD NOT DO IT
☐ I WANT TO KILL MYSELF

10. ☐ I FEEL LIKE CRYING EVERYDAY
☐ I FEEL LIKE CRYING MANY DAYS
☐ I FEEL LIKE CRYING ONCE IN A WHILE

11. ☐ THINGS BOTHER ME ALL THE TIME
☐ THINGS BOTHER ME MANY TIMES
☐ THINGS BOTHER ME ONCE IN A WHILE

12. ☐ I LIKE BEING WITH PEOPLE
☐ I DO NOT LIKE BEING WITH PEOPLE MANY TIMES
☐ I DO NOT WANT TO BE WITH PEOPLE AT ALL

13. ☐ I CANNOT MAKE UP MY MIND ABOUT THINGS
☐ IT IS HARD TO MAKE UP MY MIND ABOUT THINGS
☐ I MAKE UP MY MIND ABOUT THINGS EASILY

14. ☐ I LOOK O.K.
☐ THERE ARE SOME BAD THINGS ABOUT MY LOOKS
☐ I LOOK UGLY

15. ☐ I HAVE TO PUSH MYSELF ALL THE TIME TO DO MY SCHOOLWORK
☐ I HAVE TO PUSH MYSELF MANY TIMES TO DO MY SCHOOLWORK
☐ DOING SCHOOLWORK IS NOT A BIG PROBLEM

16. ☐ I HAVE TROUBLE SLEEPING EVERY NIGHT
☐ I HAVE TROUBLE SLEEPING MANY NIGHTS
☐ I SLEEP PRETTY WELL

17. ☐ I AM TIRED ONCE IN A WHILE
☐ I AM TIRED MANY DAYS
☐ I AM TIRED ALL THE TIME

18. ☐ MOST DAYS I DO NOT FEEL LIKE EATING
☐ MANY DAYS I DO NOT FEEL LIKE EATING
☐ I EAT PRETTY WELL

19. ☐ I DO NOT WORRY ABOUT ACHES AND PAINS
☐ I WORRY ABOUT ACHES AND PAINS MANY TIMES
☐ I WORRY ABOUT ACHES AND PAINS ALL THE TIME

20. ☐ I DO NOT FEEL ALONE
☐ I FEEL ALONE MANY TIMES
☐ I FEEL ALONE ALL THE TIME

21. ☐ I NEVER HAVE FUN AT SCHOOL
☐ I HAVE FUN AT SCHOOL ONLY ONCE IN A WHILE
☐ I HAVE FUN AT SCHOOL MANY TIMES

22. ☐ I HAVE PLENTY OF FRIENDS
☐ I HAVE SOME FRIENDS BUT I WISH I HAD MORE
☐ I DO NOT HAVE ANY FRIENDS

23. ☐ MY SCHOOL WORK IS ALRIGHT
☐ MY SCHOOLWORK IS NOT AS GOOD AS BFFORE
☐ I DO VERY BADLY IN SUBJECTS I USED TO BE GOOD IN

24. ☐ I CAN NEVER BE AS GOOD AS OTHER KIDS
☐ I CAN BE AS GOOD AS OTHER KIDS IF I WANT TO
☐ I AM JUST AS GOOD AS OTHER KIDS

25. ☐ NOBODY REALLY LOVES ME
☐ I AM NOT SURE IF ANYBODY LOVES ME
☐ I AM SURE THAT SOMEBODY LOVES ME

26. ☐ I USUALLY DO WHAT I AM TOLD
☐ I DO NOT DO WHAT I AM TOLD MOST TIMES
☐ I NEVER DO WHAT I AM TOLD

27. ☐ I GET ALONG WITH PEOPLE
☐ I GET INTO FIGHTS MANY TIMES
☐ I GET INTO FIGHTS ALL THE TIME

THE END

THANK YOU FOR FILLING OUT THIS FORM

MOTHER VERSION

CD INVENTORY

NAME: _____

CHILD'S NAME: _____

DATE: _____

CHILDREN SOMETIMES HAVE DIFFERENT FEELINGS AND IDEAS.

THIS FORM LISTS THE FEELINGS AND IDEAS IN GROUPS. FROM EACH GROUP, PICK ONE SENTENCE THAT YOU THINK BEST DESCRIBES YOUR CHILD FOR THE PAST TWO WEEKS. AFTER YOU PICK A SENTENCE FROM THE FIRST GROUP, GO ON TO THE NEXT GROUP.

THERE IS NO RIGHT ANSWER OR WRONG ANSWER. JUST PICK THE SENTENCE THAT BEST DESCRIBES THE WAY YOU THINK YOUR CHILD HAS BEEN RECENTLY. PUT A MARK LIKE THIS X NEXT TO YOUR ANSWER. PUT THE MARK IN THE BOX NEXT TO THE SENTENCE THAT YOU PICK.

HERE IS AN EXAMPLE OF HOW THIS FORM WORKS. TRY IT. PUT A MARK NEXT TO THE SENTENCE THAT DESCRIBES YOUR CHILD BEST.

EXAMPLE:

☐ I READ BOOKS ALL THE TIME

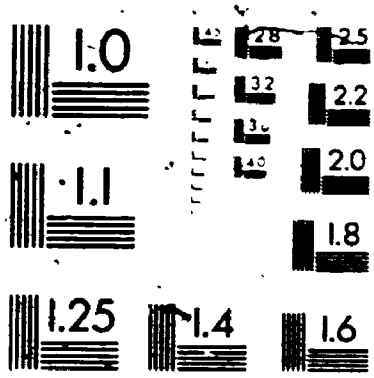
☐ I READ BOOKS ONCE IN A WHILE

☐ I NEVER READ BOOKS

follow-up, both groups of psychiatric patient women evidenced improvement in terms of their levels of depression and of general psychological distress. The medical patient group evidenced mild psychological difficulties and slightly elevated depression scores, but their functioning was not sufficiently disturbed to warrant psychiatric treatment. In interpreting group differences, diagnostic status is associated with severity of impairment, making it difficult to separate the effects of each. Therefore, the hypothesis that severity of disturbance rather than depression accounts for differences must be considered.

In terms of self-reported social functioning, based on responses to the Health and Daily Living Form (HDL) and the Perceived Stress Scale (PSS), the depressed women were more impaired than were the community women on all seven indices. Compared to community women, the depressed women reported engaging in fewer activities with either family or friends, having a smaller network of friends, and having fewer close relationships. In addition, the depressed women also reported that the quality of their closest relationship was poorer, that there were a greater number of issues that caused arguments in their families, and that they felt more stressed. In contrast, the nondepressed psychiatric patients differed from the community mothers on only one index: they reported higher levels of perceived stress. Medical patient mothers also differed from community mothers on only one index: they reported having a smaller network of friends.

A comparison of depressed womens' scores with those of women in the other two patient groups indicated many areas of overlap.



REMEMBER, PICK OUT THE SENTENCES THAT DESCRIBE YOUR FEELINGS AND IDEAS IN THE PAST TWO WEEKS.

1. ☐ I AM SAD ONCE IN A WHILE
   ☐ I AM SAD MANY TIMES
   ☐ I AM SAD ALL THE TIME

2. ☐ NOTHING WILL EVER WORK OUT FOR ME
   ☐ I AM NOT SURE IF THINGS WILL WORK OUT FOR ME
   ☐ THINGS WILL WORK OUT FOR ME O.K.

3. ☐ I DO MOST THINGS O.K.
   ☐ I DO MANY THINGS WRONG
   ☐ I DO EVERYTHING WRONG

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   ☐ I HAVE FUN IN SOME THINGS
   ☐ NOTHING IS FUN AT ALL

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   ☐ I AM BAD MANY TIMES
   ☐ I AM BAD ONCE IN A WHILE

6. ☐ I THINK ABOUT BAD THINGS HAPPENING TO ME ONCE IN A WHILE
   ☐ I WORRY THAT BAD THINGS WILL HAPPEN TO ME
   ☐ I AM SURE THAT TERRIBLE THINGS WILL HAPPEN TO ME

7. ☐ I HATE MYSELF
   ☐ I DO NOT LIKE MYSELF
   ☐ I LIKE MYSELF

8. ☐ ALL BAD THINGS ARE MY FAULT
☐ MANY BAD THINGS ARE MY FAULT
☐ BAD THINGS ARE NOT USUALLY MY FAULT

9. ☐ I DO NOT THINK ABOUT KILLING MYSELF
☐ I THINK ABOUT KILLING MYSELF BUT I WOULD NOT DO IT
☐ I WANT TO KILL MYSELF

10. ☐ I FEEL LIKE CRYING EVERYDAY
☐ I FEEL LIKE CRYING MANY DAYS
☐ I FEEL LIKE CRYING ONCE IN A WHILE

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☐ THINGS BOTHER ME MANY TIMES
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☐ I DO NOT WANT TO BE WITH PEOPLE AT ALL

13. ☐ I CANNOT MAKE UP MY MIND ABOUT THINGS
☐ IT IS HARD TO MAKE UP MY MIND ABOUT THINGS
☐ I MAKE UP MY MIND ABOUT THINGS EASILY

14. ☐ I LOOK O.K.
☐ THERE ARE SOME BAD THINGS ABOUT MY LOOKS
☐ I LOOK UGLY

15. ☐ I HAVE TO PUSH MYSELF ALL THE TIME TO DO MY SCHOOLWORK
☐ I HAVE TO PUSH MYSELF MANY TIMES TO DO MY SCHOOLWORK
☐ DOING SCHOOLWORK IS NOT A BIG PROBLEM

16.
- ☐ I HAVE TROUBLE SLEEPING EVERY NIGHT
- ☐ I HAVE TROUBLE SLEEPING MANY NIGHTS
- ☐ I SLEEP PRETTY WELL

17.
- ☐ I AM TIRED ONCE IN A WHILE
- ☐ I AM TIRED MANY DAYS
- ☐ I AM TIRED ALL THE TIME

18.
- ☐ MOST DAYS I DO NOT FEEL LIKE EATING
- ☐ MANY DAYS I DO NOT FEEL LIKE EATING
- ☐ I EAT PRETTY WELL

19.
- ☐ I DO NOT WORRY ABOUT ACHES AND PAINS
- ☐ I WORRY ABOUT ACHES AND PAINS MANY TIMES
- ☐ I WORRY ABOUT ACHES AND PAINS ALL THE TIME

20.
- ☐ I DO NOT FEEL ALONE
- ☐ I FEEL ALONE MANY TIMES
- ☐ I FEEL ALONE ALL THE TIME

21.
- ☐ I NEVER HAVE FUN AT SCHOOL
- ☐ I HAVE FUN AT SCHOOL ONLY ONCE IN A WHILE
- ☐ I HAVE FUN AT SCHOOL MANY TIMES

22.
- ☐ I HAVE PLENTY OF FRIENDS
- ☐ I HAVE SOME FRIENDS BUT I WISH I HAD MORE
- ☐ I DO NOT HAVE ANY FRIENDS

23. ☐ MY SCHOOL WORK IS ALRIGHT
☐ MY SCHOOLWORK IS NOT AS GOOD AS BEFORE
☐ I DO VERY BADLY IN SUBJECTS I USED TO BE GOOD IN

24. ☐ I CAN NEVER BE AS GOOD AS OTHER KIDS
☐ I CAN BE AS GOOD AS OTHER KIDS IF I WANT TO
☐ I AM JUST AS GOOD AS OTHER KIDS

25. ☐ NOBODY REALLY LOVES ME
☐ I AM NOT SURE IF ANYBODY LOVES ME
☐ I AM SURE THAT SOMEBODY LOVES ME

26. ☐ I USUALLY DO WHAT I AM TOLD
☐ I DO NOT DO WHAT I AM TOLD MOST TIMES
☐ I NEVER DO WHAT I AM TOLD

27. ☐ I GET ALONG WITH PEOPLE
☐ I GET INTO FIGHTS MANY TIMES
☐ I GET INTO FIGHTS ALL THE TIME

THE END

THANK YOU FOR FILLING OUT THIS FORM

SUM:

Appendix K

CHILD BEHAVIOR CHECKLIST

PREVIOUSLY COPYRIGHTED MATERIAL IN APPENDIX K NOT MICROFILMED:

LES DOCUMENTS ENCORE SOUS L'EFFET DU DROIT D'AUTEUR DANS L'APPENDICE K:

CHILD BEHAVIOR CHECKLIST FOR AGES 4-16.

Page 1; 3-81 Edition.

CHILD BEHAVIOR CHECKLIST FOR AGES 4-16

For office use only
ID #

CHILD'S NAME

SEX ☐ Boy ☐ Girl | AGE | RACE

TODAY'S DATE Mo. ____ Day ____ Yr ____

CHILD'S BIRTHDATE Mo ____ Day ____ Yr ____

GRADE IN SCHOOL >>>>

PARENT'S TYPE OF WORK (Please be specific—for example auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant, even if parent does not live with child.)

FATHER'S TYPE OF WORK: _____

MOTHER'S TYPE OF WORK: _____

THIS FORM FILLED OUT BY

☐ Mother
☐ Father
☐ Other (Specify)

I. Please list the sports your child most likes to take part in. For example: swimming, baseball, skating, skate boarding, bike riding, fishing, etc.

☐ None

Compared to other children of the same age, about how much time does he/she spend in each?

	Don't Know	Less Than Average	Average	More Than Average
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

Compared to other children of the same age, how well does he/she do each one?

	Don't Know	Below Average	Average	Above Average
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

II. Please list your child's favorite hobbies, activities, and games, other than sports. For example: stamps, dolls, books, piano, crafts, singing, etc. (Do not include T.V.)

☐ None

Compared to other children of the same age, about how much time does he/she spend in each?

	Don't Know	Less Than Average	Average	More Than Average
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

Compared to other children of the same age, how well does he/she do each one?

	Don't Know	Below Average	Average	Above Average
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

III. Please list any organizations, clubs, teams, or groups your child belongs to.

☐ None

Compared to other children of the same age, how active is he/she in each?

	Don't Know	Less Active	Average	More Active
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

IV. Please list any jobs or chores your child has. For example: paper route, babysitting, making bed, etc.

☐ None

Compared to other children of the same age, how well does he/she carry them out?

	Don't Know	Below Average	Average	Above Average
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

V. 1. About how many close friends does your child have? ☐ None ☐ 1 ☐ 2 or 3 ☐ 4 or more

2. About how many times a week does your child do things with them? ☐ less than 1 ☐ 1 or 2 ☐ 3 or more

VI. Compared to other children of his/her age, how well does your child:

	Worse	About the same	Better
a. Get along with his/her brothers & sisters?	☐	☐	☐
b. Get along with other children?	☐	☐	☐
c. Behave with his/her parents?	☐	☐	☐
d. Play and work by himself/herself?	☐	☐	☐

VII. 1. Current school performance—for children aged 6 and older:

☐ Does not go to school

	Failing	Below average	Average	Above average
a. Reading or English	☐	☐	☐	☐
b. Writing	☐	☐	☐	☐
c. Arithmetic or Math	☐	☐	☐	☐
d. Spelling	☐	☐	☐	☐
Other academic subjects—for example: history, science, foreign language, geography. e. _____	☐	☐	☐	☐
f. _____	☐	☐	☐	☐
g. _____	☐	☐	☐	☐

2. Is your child in a special class?

☐ No ☐ Yes—what kind?

3. Has your child ever repeated a grade?

☐ No ☐ Yes—grade and reason

4. Has your child had any academic or other problems in school?

☐ No ☐ Yes—please describe

When did these problems start?

Have these problems ended?

☐ No ☐ Yes—when?

VIII. Below is a list of items that describe children. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

0 1 2 1. Acts too young for his/her age
0 1 2 2. Allergy (describe) _____
_____
0 1 2 3. Argues a lot
0 1 2 4. Asthma
0 1 2 5. Behaves like opposite sex
0 1 2 6. Bowel movements outside toilet
0 1 2 7. Bragging, boasting
0 1 2 8. Can't concentrate, can't pay attention for long
0 1 2 9. Can't get his/her mind off certain thoughts; obsessions (describe). _____
_____
0 1 2 10. Can't sit still, restless, or hyperactive
0 1 2 11. Clings to adults or too dependent
0 1 2 12. Complains of loneliness
0 1 2 13. Confused or seems to be in a fog
0 1 2 14. Cries a lot
0 1 2 15. Cruel to animals
0 1 2 16. Cruelty, bullying, or meanness to others
0 1 2 17. Day-dreams or gets lost in his/her thoughts
0 1 2 18. Deliberately harms self or attempts suicide
0 1 2 19. Demands a lot of attention
0 1 2 20. Destroys his/her own things
0 1 2 21. Destroys things belonging to his/her family or other children
0 1 2 22. Disobedient at home
0 1 2 23. Disobedient at school
0 1 2 24. Doesn't eat well
0 1 2 25. Doesn't get along with other children
0 1 2 26. Doesn't seem to feel guilty after misbehaving
0 1 2 27. Easily jealous
0 1 2 28. Eats or drinks things that are not food (describe): _____
_____
0 1 2 29. Fears certain animals, situations, or places, other than school (describe) _____
_____
0 1 2 30. Fears going to school
0 1 2 31. Fears he/she might think or do something bad
0 1 2 32. Feels he/she has to be perfect
0 1 2 33. Feels or complains that no one loves him/her
0 1 2 34. Feels others are out to get him/her
0 1 2 35. Feels worthless or inferior
0 1 2 36. Gets hurt a lot, accident-prone
0 1 2 37. Gets in many fights
0 1 2 38. Gets teased a lot
0 1 2 39. Hangs around with children who get in trouble
0 1 2 40. Hears things that aren't there (describe)
_____
_____
0 1 2 41. Impulsive or acts without thinking
0 1 2 42. Likes to be alone
0 1 2 43. Lying or cheating
0 1 2 44. Bites fingernails
0 1 2 45. Nervous, highstrung, or tense
0 1 2 46. Nervous movements or twitching (describe)
_____
_____
0 1 2 47. Nightmares
0 1 2 48. Not liked by other children
0 1 2 49. Constipated, doesn't move bowels
0 1 2 50. Too fearful or anxious
0 1 2 51. Feels dizzy
0 1 2 52. Feels too guilty
0 1 2 53. Overeating
0 1 2 54. Overtired
0 1 2 55. Overweight
56. Physical problems without known medical cause:
0 1 2 a. Aches or pains
0 1 2 b. Headaches
0 1 2 c. Nausea, feels sick
0 1 2 d. Problems with eyes (describe):
_____
0 1 2 e. Rashes or other skin problems
0 1 2 f. Stomachaches or cramps
0 1 2 g. Vomiting, throwing up
0 1 2 h. Other (describe) _____
_____

Please see other side

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

0 1 2 57. Physically attacks people
0 1 2 58. Picks nose, skin, or other parts of body (describe): _____
_____ 80
0 1 2 59. Plays with own sex parts in public 16
0 1 2 60. Plays with own sex parts too much
0 1 2 61. Poor school work
0 1 2 62. Poorly coordinated or clumsy
0 1 2 63. Prefers playing with older children 20
0 1 2 64. Prefers playing with younger children
0 1 2 65. Refuses to talk
0 1 2 66. Repeats certain acts over and over; compulsions (describe): _____
_____
0 1 2 67. Runs away from home
0 1 2 68. Screams a lot 25
0 1 2 69 Secretive, keeps things to self
0 1 2 70. Sees things that aren't there (describe):
_____
_____
0 1 2 71. Self-conscious or easily embarrassed
0 1 2 72. Sets fires
0 1 2 73. Sexual problems (describe):
_____
_____ 30
0 1 2 74. Showing off or clowning
0 1 2 75. Shy or timid
0 1 2 76. Sleeps less than most children
0 1 2 77. Sleeps more than most children during day and/or night (describe) _____
_____
0 1 2 78 Smears or plays with bowel movements 35
0 1 2 79 Speech problem (describe): _____
_____
0 1 2 80. Stares blankly
0 1 2 81 Steals at home
0 1 2 82 Steals outside the home
0 1 2 83 Stores up things he/she doesn't need (describe)
_____ 40
0 1 2 84 Strange behavior (describe): _____
_____
0 1 2 85. Strange ideas (describe):
_____
0 1 2 86. Stubborn, sullen, or irritable
0 1 2 87. Sudden changes in mood or feelings
0 1 2 88 Sulks a lot 45
0 1 2 89 Suspicious
0 1 2 90 Swearing or obscene language
0 1 2 91. Talks about killing self
0 1 2 92. Talks or walks in sleep (describe)
_____
0 1 2 93 Talks too much 50
0 1 2 94. Teases a lot
0 1 2 95. Temper tantrums or hot temper
0 1 2 96. Thinks about sex too much
0 1 2 97. Threatens people
0 1 2 98. Thumb-sucking 55
0 1 2 99 Too concerned with neatness or cleanliness
0 1 2 100 Trouble sleeping (describe):
_____
0 1 2 101. Truancy, skips school
0 1 2 102. Underactive, slow moving, or lacks energy
0 1 2 103. Unhappy, sad, or depressed 60
0 1 2 104. Unusually loud
0 1 2 105. Uses alcohol or drugs (describe)
_____
0 1 2 106 Vandalism
0 1 2 107. Wets self during the day
0 1 2 108 Wets the bed 65
0 1 2 109 Whining
0 1 2 110 Wishes to be of opposite sex
0 1 2 111 Withdrawn, doesn't get involved with others
0 1 2 112 Worrying
113 Please write in any problems your child has that were not listed above
0 1 2 _____ 70
0 1 2 _____
0 1 2 _____

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS PAGE 4 UNDERLINE ANY YOU ARE CONCERNED ABOUT

Appendix L

PLAY CODING MANUAL

SUMMARY OF CODES FOR PLAY INTERACTION

A. COMMANDS:

1. Direct command: DCP: parent; DCC: child.

Clearly stated order, demand or direction in declarative form. Specific. Often begin with the imperative verb, but may also start with "please", or with the other person's name. If the person is told to do a series of things in one sentence, only one direct command is coded. Direct commands are always "positive" commands, i.e., they tell the person what to do rather than what not to do.

Examples: put that book here
look at this
draw a picture
sit in this chair
give me the crayon
Tracy, take off your coat

Decision rule: when uncertain whether a statement is a direct command or an indirect command, code indirect command.

2. Indirect Command: ICP: parent; ICC: child.

An order, demand or direction for a behavioral response that is implied, non-specific, or stated in question form. Interrogatives added to the end of a command make it an indirect command. Commands stated in question form are indirect. Statements of feelings or preference are indirect commands. Finally, indirect commands are always "positive", in that they tell what to do rather than what not to do.

Examples: put it here, OK?
how about drawing the house red?
will you do what I ask?
I want you to play cards
why don't you play with this ?
Simon!
suppose you give me the game

Decision rule: code indirect if uncertain between direct and indirect command.

/...2

3. Negative command: NCP: parent; NCC: child.

A negative command is one that is used to tell the other person what not to do.

Examples: don't touch the game
stop being silly
don't break it

B. VERBAL Behavior

4. Parent Negative Verbal: NVP: parent behavior.

A parental negative verbal statement is a verbalization that finds fault with the activities, products or attributes of the child. Negative verbal does not include negative verbalizations about objects in the environment or the activities -- these are coded negative evaluation of the activity (NEA). A comment that corrects the child by pointing out what is wrong is negative verbal. Disapproval and sarcasm are both coded as negative verbal.

Examples: you're being naughty
that's stupid
you did a very messy job
that's the wrong way
you're not trying very hard

Decision rule: if uncertain between indirect command and negative verbal, code negative verbal.

5. Child Negative Verbal: NVC: child behavior.

Negative verbal behavior consists of cry, whine, yell and smart talk:
Cry: inarticulate utterance of distress; tears need not be present; includes fake crying and sniffling.
Yell: loud screech, scream, shout or loud crying. Above the intensity of normal conversation.
Whine: words uttered by the child in a slurring, nasal, high-pitched voice.
Smart talk: impudent or disrespectful speech. Arguing, refusing, or counter-commanding in response to a parental command. Criticizing parents. Swearing and cursing. Verbal threats.

Negative verbal behaviors can occur simultaneously with negative physical behaviors, in which case they receive a double code.

Example : Child: hits parent (NPC); "Don't be stupid" (NVC)

6. Praise: PP: parent; PC: child.

Praise is a verbalization that expresses a favorable judgement of an activity, attribute or product of the other person. Statements expressing approval of aspects of the environment or the activity do not constitute praise; they are coded as positive evaluation of the activity (PEA). Positive metaphors are praise.

Examples: you're smart
that's a beautiful picture you drew
terrific!
you're so pretty
you're my little helper
that's my little princess

7. Positive Self-Statement: PSSP: parent; PSSC: child.

A statement expressing a positive evaluation of self or attributes.

Examples: I can draw good animals
I built a big tower
I'm the winner
My picture is the best
I'm getting good at this

8. Negative Self-Statement: NSSP: parent; NSSC: child.

A self-deprecating or self-critical statement.

Examples: I'm no good at this
I can't draw
I messed up
That's a dumb picture

9. Positive Evaluation of Activity: PEAP: parent; PEAC: child.

A positive statement concerning the activity.

Examples: this is fun
these are neat toys
I like this

/...4.

10. Negative Evaluation of Activity: NEAP: parent; NEAC: child.

A negative or critical statement about the activity.

Examples: this is boring
these are lousy toys
there's nothing interesting here

11. Neutral Verbalization: OVP: parent: OVC: child.

Parent neutral verbalization is coded for parental statements that do not involve commands, praise, or negative verbal or evaluations of self or the activity. Child-neutral verbalizations are statements that do not involve commands, praise, negative verbalizations, or verbalizations coded as non-compliance (clarifying questions and statements of preference). Neutral verbalization includes descriptive statements, irrelevant verbalizations, acknowledgements, and reflective statements.

Examples: you're building a tower
here's a book about Indiana Jones
looks like they bought these toys at Toys-r-us
you finished the picture
I wonder how much longer this will take
we could go to Burger King on the way home
you look like you're getting tired
do you want to use these crayons ?
how about that.?

C. NONVERBAL Behavior

12. Positive Physical: PPP: parent; PPC: child.

A positive physical is any bodily contact between parent and child that is neutral or positive. Each positive physical is discrete, and is coded separately if separated from prior positive physical by at least 2 seconds.

Examples: hug
kiss
hair ruffling
touching
leaning against the other person

/...5

13. Negative Physical: NPP: parent; NPC: child.

Negative physical behavior is defined as touching of the other person that inflicts pain, restrains the other person, or accompanies a critical remark. Physical behaviors that elicit an expression of pain are coded as negative even if they are administered in a playful way. Destructive behaviors are also coded as negative physical.

Examples: restraining the other person's arm
poking to gain attention
spanking
slapping
shoving
kicking
throwing toys or materials roughly
pulling an object away from the other person

14. Compliance: CP: parent; CC: child.

Compliance is coded when the person responds to or begins to respond to a direct or indirect command within 5 seconds.

Examples: Parent: give me the book (DCP)
Child: (hands the book to parent) (CC)

Child: give me a red crayon (DCC)
Parent (passes crayon to child) (CP)

Decision rules: 1) Compliance is coded even if it is accompanied by negative verbal behavior, in which case a double code is applied.
2) Compliance is coded if the person begins to comply, even if s/he subsequently does not complete request.

15. Non-Compliance: NCP: parent; NCC: child.

Non-compliance is coded when the person does not respond to a direct or indirect command within 5 seconds. This category includes clarifying questions, statements of preference, ignoring, and engaging in incompatible behavior. When non-compliance is accompanied by a verbalization, it is double-coded according to the content of the verbalization.

Examples: Parent: give me the book (DCP)
Child: (continues playing and ignores the parent for 5 seconds) (NCC)

Child: Daddy, you draw a picture too. (DCC)
Parent: I can't draw very good pictures (NCP/NSS)

/...6

16. No-Opportunity: NOP: parent; NOC: child.

No opportunity is coded when the other person is not given an adequate chance to comply with a given command. For example, if the behavior required is clearly not within the person's competence, if the person rapidly issues another command, or if the person carries out the required behavior him- or herself, or if the command is too vague and it is unclear what is expected.

Examples:
Child: let's play Trivia, no let's play Merlin (DCC; NOC)

Parent: Draw a picture (takes pencil out of child's hand and begins to draw) (DCP: NOP)

Parent: Be nice (ICP; NOP)

BASIC RULES

1) Each unit of verbal behavior is coded according to a "one sentence rule". Each sentence defines one verbal behavior.

2) When verbal or physical behaviors run together in a series, a 2-second rule is applied. Each time a behavior stops for 2-seconds (i.e., a pause) and then continues, the continuation after the pause is coded as a new behavior.

3) A 5-second rule is applied to non-discrete behavior (e.g., holding a child) that continues without a pause. Each new 5-second interval is coded as one occurrence of the behavior.

4) Each discrete behavior is coded into only one category.

In addition to the above codes, the videotapes were also coded to determine the amount of time spent in joint versus solitary activity. Two stop-watches were used to record the total time spent in joint versus solitary activity.

JOINT ACTIVITY: parent and child communicating with one another verbally or non-verbally, are working together on a task or are engaged in mutual play. Code joint activity if parent or child is gazing at the other. Parent reading instructions for a child is coded as joint activity only when the parent verbalizes the instructions. Parent leaning forward towards the child is coded as joint activity. Parent reading aloud a questionnaire is not coded as joint activity.

SOLITARY ACTIVITY: parent and child are not communicating with one another. There is an absence of gazing, physical contact, or mutual play.

Appendix M

DISCUSSION CODING MANUAL

SUMMARY OF CODES FOR DISCUSSION INTERACTION

DEFINITION	EXAMPLES
SUGGESTION: (S)	
Statement proposing a course of action. Suggestions may be in question form.	we could go on a trip (S) let's go to Disneyland (S) why don't we go to Grandma's? (S)
QUESTION: (Q)	
Statement that requests a factual response from another person. Statement that provides two or more alternatives and requires the person to choose between them.	how long do you want to stay there? (Q) do you want to go by car or by plane? (Q) where is Disneyland? (Q) what do you want to do? (Q) where does she live? (Q)

Decision rule: if uncertain between question and suggestion, code suggestion.

ENCOURAGING RESPONSE: (ER)	
A statement seeking a response from the other person. ER's have little manifest content but solicit the other person's reaction. ER's may occur when the person didn't hear a previous comment. Grunts with a questioning intonation are also coded ER. ER includes physical gestures such as tugs at sleeve, if these are not negatively delivered.	what do you think? (ER) how would that be? (ER) what did you say? (ER) hm? (ER) eh? (ER) well? (ER) guess what? (ER) you know what? (ER) huh? (ER)
COMMAND: (C)	
Order or demand for a behavioral response. Commands may be of direct or indirect form. Instructions not to to do something are coded as commands. Tone is important in a command; it may be demanding or insistent.	take your feet off the table (C) don't play with the curtains (C) give me the pencil (C) stop being silly (C) listen to me (C)

/...2

DEFINITION	EXAMPLES
RESPONSE: (R)	
An answer to a question or encouraging response that is factual and is not evaluative. R is neutral in tone.	how long would it take to get there? (Q) we'd be there in six hours (R) what do you think? (ER) sounds okay (R)
AGREEMENT:	
1) Assent: (A)	
Brief response which indicates listener is following what is said. Assents may be emitted during the course of another person's speech, but do not constitute interruptions. Assents have no manifest content other than acknowledging what is being said. Assents are unsolicited. Assenting statements that are in response to an ER are coded response (R). Assents may be repetitions of other person's previous statements. Assents may also be nonverbal, such as nodding head in agreement.	yes (A) uh-huh (A) right (A) sure (A) mmhmm (A) Child: I'm going to camp (OSS) Parent: To camp (A)
2) Direct agreement: (DA)	
Statement of agreement with suggestion or question. DA usually has positive affect associated with it. Tone of enthusiasm is important in coding DA.	let's go next month (S) yes, that's fine (DA) could we stay a week? (Q) yes we certainly could! (DA) could we take a picnic? (Q) sure, that would be fun (DA) we could go to the Stampede (S) yes, I'd love that (DA)

/...3

DEFINITION	EXAMPLES
3) Compromise: (CS) A statement of negotiation of alternatives. The essential character of compromise is that there is some form of bargaining. If ...then...type statements.	If you do well at school next term, we could take you away for the last few days (CS) Child: Let's go to Toronto (S) Parent: We could go to Grandma's first, and then go to Toronto (CS)
DISAGREEMENT: 1) Vocal negative: (VN)	
Whines, moans, sighs, and grunts conveying disapproval of a suggestion. Vocal negative has no manifest content, but is an audible expression of dissatisfaction. Code VN according to the tone with which it is produced.	ugh! (VN) nawww! (VN) Mom! (indignantly) (VN) camping? (in disgust) (VN)
2) Direct disagreement: (DD)	
Statement disagreeing with previous suggestion. Factual negative responses to a question are NOT coded as disagreement, but as response. Non-verbal signs of disagreement such as head-shaking are also coded disagreemeht.	do you want to see the Blue Jays? (Q) no way! I'm not going. (DD) Is Expo going to be all year? (Q) No, just until October (R).

/...4

DEFINITION	EXAMPLES
3) Indirect disagreement: (ID)	
Statement disparaging a previous suggestion or raising obstacles. Often ID is phrased "Yes, but..."	Parent: why don't we go to Nova Scotia? (S) Child: it's so boring there (ID) Child: let's go to Wonderland (S) Parent: it would be too expensive (ID) We could go to the beach (S) I don't care (ID) I doubt there'd be time (ID)
TASK TALK:	
1) Task talk - neutral: (TTO)	
Statements redirecting conversation or commenting on the ongoing situation.	we're supposed to be planning something (TTO) she said it would take about ten minutes (TTO) we're coming up with the same ideas (TTO)
2) Task talk - positive: (TTP)	
Statements about the interaction that are positive.	this is fun (TTP) we're coming up with lots of ideas (TTP)
3) Task talk - negative: (TTN)	
Statements about the interaction that are critical or negative.	this is really boring (TTN) how much longer do we have to do this? (impatiently) (TTN)
IGNORING: (IG)	
Failure to respond to statement explicitly directed towards a person within 5 sec. No response to a question, suggestion or request for acknowledgement. Failure to respond to a command within 5 seconds.	what do you think, Jim? (ER) (no response) (IG) Sarah, you write the ideas. (C) (Child continues to pull faces in mirror and does not respond (IG)

/...5

DEFINITION	EXAMPLES
INTERRUPTING: (IN)	
Coded each time a person breaks in or attempts to break in when another person is talking. Successful interruptions will receive a double code: IN plus the relevant content code.	Child: you know where I went? (Q) Parent:(at same time), let's go to MacDonald's. (IN-S) Mother:(to child) did you fix it? (Q) Child:(appears to be about to respond Mother:No, you wouldn't do what you're asked. (IN-NSO).
POSITIVE STATEMENTS:	
1) Positive Self-Statement: (PSS)	
Statement referring to one's own attributes or achievements in a positive light.	I'm a good swimmer (PSS) I had a great idea (PSS) I can make a great picnic (PSS) I'm good at this. (PSS)
2) Positive Other-Statement: (PSO)	
Statements referring to the attributes, or achievements of people in a positive light. Comments delivered in a playful teasing tone, conveying affection.	You're a good swimmer (PSO) That was a terrific idea (PSO) You don't like ice cream do you? (affectionate playful tone) (PSO) You are a little monkey (affectionate tone) (PSO)
3) Positive environment statement: (PSE)	
Statements that convey a positive evaluation of the environment. The PSE code may be used for comments referring to the immediate environment, the outside environment, or to an imaginary environment.	it's nice and cool in here (PSE) our pool is lovely (PSE) it would be beautiful on the coast (PSE)

/...6

DEFINITION	EXAMPLES
NEGATIVE STATEMENTS	
1) Negative Self-Statements: (NSS)	
Statements that are self-critical. Includes sarcastically-toned comments.	I'm no good at this ((NSS) I can't play ball (NSS) (Parent looking at her own drawing, then sarcastically saying) Didn't I do a great job? (NSS)
2) Negative Other-Statements: (NSO)	
Statements that convey a negative evaluation of the other person. They may be in question form, disputing the other's opinion or judgment. In coding NSO it is very important to attend to the tone of the statement. NSO conveys an evaluation that the other person is stupid, mean, lazy, etc..	You always get silly (NSO) You're being stupid (NSO) Child: We could drive there (S) Parent:(sarcastically) you think we'd get there before our holiday was over? (NSO) No, that would take too long (factually) (DD) Wouldn't that take too long? (ID) great idea! (sarcastic) (NSO)
3) Negative environment statements: (NSE)	
Statements that convey a negative evaluation of the environment. Includes sarcastic tone.	this room is really uncomfortable (NSE) school is dumb (NSE)

Decision rule: if uncertain between indirect disagreement and negative other statements, code indirect disagreement.

NEUTRAL STATEMENTS	
1) Neutral Self-Statements: (OSS)	
Descriptive statements about oneself that are neither positive negative.	I like swimming (OSS) I'd like to go to Florida nor (OSS)

/...7

DEFINITION	EXAMPLES
2) Neutral Other-Statements: (OSO)	
Descriptive statements about another person that are neither positive nor negative.	Sally went to camp last summer (OSO)
3) Neutral Environment statements: (OSE)	
Statements about the environment which are neither positive nor negative	The air conditioning is on (OSE) Our house is being painted (OSE) Expo will be in B.C. (OSE) The microphone is on (OSE)

Decision rule: if uncertain between response and neutral other statement code response. If "we" statements are made then code OSS/ PSS / NSS rather than using OSO/ PSO /NSO.

Appendix N

POST INTERACTION QUESTIONNAIRES

POST INTERACTION QUESTIONNAIRE - CHILD FORM

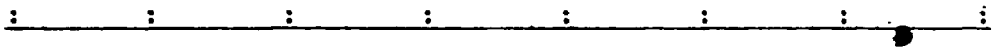
Subject: Session:

How much did you enjoy planning something?

1 2 3 4 5 6 7 8

Not at all enjoyable — Somewhat enjoyable — Extremely enjoyable

How much were you part of the planning?



1 2 3 4 5 6 7 8

Not at all involved — Somewhat involved — Extremely involved

Did you Mom behave pretty much as she usually does?

1 2 3 4 5 6 7 8

Much worse than usual — Same as usual — Much better than usual

POST INTERACTION QUESTIONNAIRE - MOTHER FORM

Subject: Session:

How much did you enjoy planning something?

1	2	3	4	5	6	7	8
Not at all enjoyable			Somewhat enjoyable				Extremely enjoyable

How much were you part of the planning?

1	2	3	4	5	6	7	8
Not at all involved			Somewhat involved				Extremely involved

How satisfied are you with the quality of the interaction?

1	2	3	4	5	6	7	8
Not at all satisfied			Somewhat satisfied				Extremely satisfied

Did your child behave pretty much as s/he usually does?

1	2	3	4	5	6	7	8
Much worse than usual			Same as usual				Much better than usual

Appendix G

PERMISSION LETTERS SENT TO THERAPISTS

The University of Western Ontario

Faculty of Social Science
Department of Psychology
London, Canada N6A 5C2

Please find attached a list of patients currently under your care who may be appropriate as participants in a study of parent-child interaction currently being conducted at University Hospital. In order to be included in the study patients must meet the following criteria:

1. Age between 18 and 50
2. No evidence of brain damage
3. Have a child between the age of 7 and 14 with whom they are living

As far as we can determine from their charts, the patients on the attached list appear to meet these criteria. With your permission we would like to approach these patients and request their voluntary participation in the study. Each patient will be given a full explanation of the study and will be assured of the confidentiality of the information obtained, after which they will be asked to sign a consent form agreeing to their participation.

The study consists of one screening session and three interaction sessions. The screening session lasts about half an hour, during which the patient will complete a questionnaire and be briefly interviewed. The subsequent sessions require participation of the patient, her child and in the case of a married patient, her spouse. During these sessions patents will complete some questionnaires and the child will be interviewed. In addition the parents and children will engage in a play-like interaction and a discussion which will be videotaped for the purpose of coding verbal and non-verbal behaviours. Families will receive fifteen dollars per session to cover transportation and babysitting expenses. All information will be kept confidential unless the patients request that it be made available to their therapists.

Please examine the attached list and indicate whether any of these patients, in your opinion, do not meet the above criteria. Those patients whom you cross off will not be asked to participate. Similarly, if there are suitable patients whom we have overlooked, please add their names to the list.

Please return this list to Marie, the out-patient secretary, at your earliest convenience. If you have any questions regarding this study we would be pleased to answer them. Dr. Gotlib can be reached at 661-3666.

Thank you for your assistance.

Ian Gotlib, Ph.D.
Clinical Psychology
Associate Professor

Catherine Lee, M.A.Sc.
Clinical Psychology
Doctoral Student

Patricia Peters
Clinical Psychology
Research Assistant

The University of Western Ontario

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Faculty of Social Science
Department of Psychology
London, Canada N6A 5C2

Please find attached a list of patients currently under your care who may be appropriate as participants in a study of parent-child interaction currently being conducted at the London Psychiatric Hospital. In order to be included in the study patients must meet the following criteria:

1. Age between 18 and 50
2. No evidence of brain damage
3. Have a child between the age of 7 and 14 with whom they are living

As far as we can determine from their charts, the patients on the attached list appear to meet these criteria. With your permission we would like to approach these patients and request their voluntary participation in the study. Each patient will be given a full explanation of the study and will be assured of the confidentiality of the information obtained, after which they will be asked to sign a consent form agreeing to their participation.

The study consists of one screening session and three interaction sessions. The screening session lasts about half an hour, during which the patient will complete a questionnaire and be briefly interviewed. The subsequent sessions require participation of the patient, her child and in the case of a married patient, her spouse. During these sessions parents will complete some questionnaires and the child will be interviewed. In addition the parents and children will engage in a play-like interaction and a discussion which will be videotaped for the purpose of coding verbal and non-verbal behaviours. Families will receive fifteen dollars per session to cover transportation and babysitting expenses. All information will be kept confidential unless the patients request that it be made available to their therapists.

Please examine the attached list and indicate whether any of these patients, in your opinion, do not meet the above criteria. Those patients whom you cross off will not be asked to participate. Similarly, if there are suitable patients whom we have overlooked, please add their names to the list.

Please return this list to Geraldine Hudson at your earliest convenience. If you have any questions regarding this study we would be pleased to answer them. Dr. Gotlib can be reached at 679-6177.

Thank you for your assistance.

Ian Gotlib, Ph.D.
Clinical Psychology
Associate Professor

Catherine Lee, M.A.Sc.
Clinical Psychology
Doctoral Student

CiCi Waugh
Clinical Psychology
Research Assistant

Appendix P

LETTERS SENT TO CLIENTS AT ST. JOSPEH'S AND F.S.L.

St. Joseph's Hospital
268 Grosvenor Street
London, Ontario N6A 4V2
Phone (519) 439-3271

RESEARCH PROJECT

In conjunction with the University of Western Ontario, St. Joseph's Hospital is presently recruiting participants for two research projects. One of these projects is assessing communication patterns between couples. The other is assessing patterns of interaction with parents and their children.

Any out-patient who is married or has been living with a partner for one year or more and who is over eighteen, qualifies for the research. Alternatively, any patient with a child between the age of seven and fourteen would qualify for the second project.

If you are agreeable, a staff member associated with this research will contact you to give you further details about this research and/or the nature of your potential involvement. Note that your consent to be contacted does not commit you to participate in the study, rather, this consent is only for the purpose of being contacted.

Your confidentiality will be assured and your decision about participation in this study will have no influence on your treatment at O-P.P.S.

Thank you for your anticipated co-operation.

Please fill in below and return either to the receptionist or to your therapist.

1. I agree to be contacted about the research. [ ]
2. I do not agree to be contacted about the research. [ ]
3. I do not qualify for the research as outlined above. [ ]

Name: _____
(Please print clearly.)

Telephone Number: _____ _____
(Residence) (Business)

Date: _____

9/12/89

90 Albert Street, London, Ontario N6A 1L8 Phone 433-0183

Employee Assistance Program

In conjunction with the University of Western Ontario, Family Service London is presently recruiting participants for two research projects. One of these projects is assessing communication patterns between couples. The other is assessing patterns of interaction with parents and their children.

Any client who is married or has been living with a partner for one year or more and who is over eighteen, qualifies for the research. Alternatively, any client with a child between the age of seven and fourteen would qualify for the second project. Clients will be paid for their participation.

If you are agreeable, a staff member associated with this research will contact you to give you further details about this research and/or the nature of your potential involvement. Note that your consent to be contacted does not commit you to participate in the study. Rather, this consent is only for the purpose of being contacted.

Your confidentiality will be assured and your decision about participation in this study will have no influence on your treatment at Family Service London.

Thank you for your anticipated co-operation.

Please fill in below and return either to the receptionist or to your therapist.

1. I agree to be contacted about the research. [ ]

2. I do not agree to be contacted about the research. [ ]

3. I do not qualify for the research as outlined above. [ ]

Name: _____
(Please print clearly.)

Telephone Number: _____ _____
(Residence) (Business)

Date: _____

Appendix Q

DESCRIPTIONS OF THE STUDY GIVEN TO MOTHERS

INITIAL TELEPHONE CONTACT WITH COMMUNITY MOTHERS

Thank you for your interest in this study.

This is a study of how families deal with and are affected by the different types of stresses that they face in their everyday lives. In our study there are different kinds of families. In some of the families the mothers are receiving help with a physical problem such as rheumatoid arthritis; in other families the mother is receiving help with an emotional problem; some of the mothers are not receiving any special help.

Do you have a child between the ages of 7 and 13 who is living with you? Are you the child's biological mother? Are you now or have you ever received help with an emotional problem?

We're interested in finding out as much as possible about the family, and we do that by getting information in several ways. If you were to take part in the study, we'd ask you to come for a research appointment with your youngest child who is between 7 and 13. The research session would last about an hour and a half. First we'd ask you to fill out some questionnaires about how you've been feeling lately, and also about how you think your child is doing. To protect your privacy your name would not be on any of the questionnaires. We use code numbers so that the information you give us would be kept safe.

During the time you were filling out the questionnaires, your child would be interviewed about school, friends, feelings and so on. After that, we'd like you to spend some time together in a room with some toys and games. We'd ask you to spend time together just as if you had some time to spare at home. While you were with your child we'd be making a videotape of the two of you together. We do that so that we can look at the videotape later.

After we've examined the videotape, it would be erased. All the information from the questionnaires and videotapes would be strictly confidential.

Ideally we'd like to see you three times. The first appointment would be in the next week or so, the second six weeks later and the third six months after that. Of course we don't expect you to commit yourself to being involved in all three sessions right now. After the first session we'd ask you if you would be prepared to come back again. We give families $15 for each session. That's to cover parking, babysitting, or bus fares.

Do you have any questions? Perhaps you'd like some time to think about whether you'd like to participate. I'm sure you'll also want to talk it over with your child to see if he or she is willing to take part. When would be a convenient time for me to call back?

INITIAL TELEPHONE CONTACT WITH PATIENTS
FROM U.H. AND L.P.H.

Hello my name is_____, I'm calling from the University of Western Ontario. I received your name and number from _____ (therapist's name), as they gave me permission to contact you about some research we're conducting. I wonder if I could take a few minutes of your time to tell you about the study and to see whether you might be interested in participating. Do you have a child who is between the ages of 7 and 13 who is living with you? Are you the child's biological mother? Is this a convenient time to tell you about the project?

This is a study of how families deal with and are affected by the different types of stresses that they face in their everyday lives. In our study there are different kinds of families. In some of the families the mothers are receiving help with a physical problem such as rheumatoid arthritis; in other families the mother is receiving help with an emotional problem; some of the mothers are not receiving any special help. Although _____ (therapist's name) agreed to let us contact you, involvement in the study is voluntary, and is completely separate from any treatment you are receiving.

We're interested in finding out as much as possible about the family, and we do that by getting information in several ways. If you were to take part in the study, we'd ask you first to be briefly interviewed. The interview would last about half an hour, and would be about how you've been feeling recently. If you like, we could schedule that appointment to coincide with your next appointment at University Hospital/London Psychiatric Hospital.

After that we'd ask you to come for a research appointment with your youngest child who is between 7 and 13. The research session would last about an hour and a half. Most mothers prefer to come in the evenings or on weekends. First we'd ask you to fill out some questionnaires about how you've been feeling lately, and also about how you think your child is doing. To protect your privacy your name would not be on any of the questionnaires. We use code numbers so that the information you give us would be kept safe. During the time you were filling out the questionnaires, your child would be interviewed about school, friends, feelings and so on.

Finally, we'd like you and your child to spend some time together in a room with some toys and games. We'd ask you to spend time together just as if you had some time to spare at home. While you were with your child we'd be making a videotape of the two of you together. We do that so that we can look at the videotape later. After we've examined the videotape, it would be erased.

/...2

All the information from the questionnaires and videotapes would be strictly confidential. We would not pass on any information to your therapist. However, if there was something from the research that you wanted to share with him/her, then you would be free to do so.

Ideally we'd like to see you three times. The first appointment would be in the next week or so, the second six weeks later and the third six months after that. Of course we don't expect you to commit yourself to being involved in all three sessions right now. After the first session we'd ask you if you would be prepared to come back again. We give families $15 for each session. That's to cover parking, babysitting, or bus fares.

Do you have any questions? Perhaps you'd like some time to think about whether you'd like to participate. I'm sure you'll also want to talk it over with your child to see if s/he is willing to take part. When would be a convenient time for me to call back?

INITIAL TELEPHONE CONTACT WITH PATIENTS FROM
ST. JOSEPH'S HOSPITAL AND FAMILY SERVICE LONDON

Hello my name is_____, I'm calling from the University of Western Ontario. I received your name and number from St. Joseph's Hospital/Family Service London, and I understand that you are willing to hear more about a research project that we're conducting. Do you have a child who is between the ages of 7 and 13 who is living with you? Are you the child's biological mother? Is this a convenient time to tell you about the project ?

This is a study of how families deal with and are affected by the different types of stresses that they face in their everyday lives. In our study there are different kinds of families. In some of the families the mothers are receiving help with a physical problem such as rheumatoid arthritis; in other families the mother is receiving help with an emotional problem; some of the mothers are not receiving any special help. Although the staff at St. Joseph's Hospital/Family Service London have agreed to let us contact you, involvement in the study is completely voluntary, and is completely separate from any treatment you are receiving.

We're interested in finding out as much as possible about the family, and we do that by getting information in several ways. If you were to take part in the study, we'd ask you first to be briefly interviewed. The interview would last about half an hour and would be about how you've been feeling recently. If you like, we could schedule that appointment to coincide with your next appointment at St. Joseph's Hospital/Family Service London.

After that we'd ask you to come for a research appointment with your youngest child who is between 7 and 13. The research session would last about an hour and a half. Most mothers prefer to come in the evenings or on weekends. First we'd ask you to fill out some questionnaires about how you've been feeling lately, and also about how you think your child is doing. To protect your privacy your name would not be on any of the questionnaires. We use code numbers so that the information you give us would be kept safe. During the time you were filling out the questionnaires, your child would be interviewed about school, friends, feelings and so on.

Finally, we'd like you to spend some time together in a room with some toys and games. We'd ask you to spend time together just as if you had some time to spare at home. While you were with your child we'd be making a videotape of the two of you together. We do that so that we can look at the videotape later. After we've examined the videotape, it would be erased.

/...2

All the information from the questionnaires and videotapes would be strictly confidential. We would not pass on any information to your therapist. However, if there was something from the research that you wanted to share with him/her, then you would be free to do so.

Ideally we'd like to see you three times. The first appointment would be in the next week or so, the second six weeks later and the third six months after that. Of course we don't expect you to commit yourself to being involved in all three sessions right now. After the first session we'd ask you if you would be prepared to come back again. We gave families $15 for each session. That's to cover parking, babysitting, or bus fares.

Do you have any questions? Perhaps you'd like some time to think about whether you'd like to participate. I'm sure you'll also want to talk it over with your child to see if s/he is willing to take part. When would be a convenient time for me to call back?

Appendix R

NEWSPAPER ADVERTISEMENT SOLICITING SUBJECTS

NEWSPAPER ADVERTISEMENT

Families with children aged 7-13 needed for a UWO study of family interaction. Families will receive $15 for participation. For more information call 227-4569 after 5pm.

Appendix S

LETTERS SOLICITING COMMUNITY SUBJECTS

The University of Western Ontario

Faculty of Social Science
Department of Psychology
London, Canada N6A 5C2

A study is being conducted at the University of Western Ontario on family interaction. It involves the participation of the mother, father and the youngest child in the family who is between the ages of 7 and 14. If you agree to take part, you would come to the university on three separate occasions. Each visit lasts a little under two hours. During these sessions the parents complete questionnaires about feelings and family activities. Meanwhile, the child is interviewed about how they're doing at school, what they like to do in their spare time, etc. In addition, parents and children are asked to spend some time together in a playroom, and also to chat together. This part of the research is videotaped. Like all the other information, the videotapes are confidential and are used only for research purposes. The three research sessions would be scheduled over the next six months, and families receive $15.00 for each session they attend.

Thank you for considering to participate in this project. We will call you in a few days to answer any questions you might have.

Sincerely,

Ian Gotlib, Ph.D.
Clinical Psychology
Associate Professor

Catherine Lee, M.A.Sc.
Clinical Psychology
Doctoral Student

CiCi Waugh, B.A.
Clinical Psychology
Research Assistant

CL/mm

The University of Western Ontario

Faculty of Social Science
Department of Psychology
London, Canada N6A 5C2

A study is being conducted in the Psychology Department at the University of Western Ontario on family interaction. It involves the participation of the mother, father and the youngest child in the family who is between the ages of 7 and 14. If you do agree to take part in this study, you would be asked to come to the university on three separate occasions over the next few months. Each visit lasts a little under two hours, and families receive $15.00 for each session they attend. During these sessions the parents complete questionnaires about their feelings and about family activities. Meanwhile, the child is interviewed about how they're doing at school, what they like to do in their spare time, etc. In addition, parents and children are asked to spend some time together in a playroom, and also to chat together as a family. This part of the research is videotaped. Like all the other information, however, the videotapes are confidential and are used only with your permission, and only for research purposes.

If you agree to be contacted, an individual associated with this project will contact you to give you further details and to discuss the nature of your potential involvement. Please note that your consent to be contacted does not in any way commit you to participate in the study. If you have any questions at this point, please feel free to phone Dr. Ian Gotlib at 679-6177.

Thank you for your anticipated co-operation.

Please fill in below and return to the Pre-school.

1. I agree to be contacted about the research. [ ]

2. I do not agree to be contacted about the research. [ ]

3. My children are too young to qualify for the research. [ ]

Name:

Telephone number:

Date:

Appendix T

OUTLINE OF THE STUDY PRESENTED TO CHILDREN

OUTLINE OF THE STUDY PRESENTED TO CHILDREN

As your Mom may have told you, we're trying to find about more about families. In our study there are many different kinds of families. We're interested in finding out as much as possible about the family, and we do that by getting information in several ways. First your Mom will stay in this room and fill out a whole bunch of questions. While she's in here we can go in the next room for a talk.

It's a special kind of talk. I'll be asking you about school, friends, feelings and so on. It's also a private talk. I won't be telling your Mom what you say. In fact I'm going to ask her not to even ask you what we talked about. I'll be asking lots of different questions, there's no right answers and no wrong answers. If you don't want to answer a question, just tell me. Like I said, I won't tell your Mom about our talk, except if you tell me something that makes me worry about you, then I'd have to talk to your Mom. Is that okay?

After we've finished talking, I'd like you and your Mom to spend some time together in here. We'll be making a videotape of the two of you together. I'll tell you when the videotape is going to be on. Do you understand? Do you have any questions? Does it sound okay to you?

Appendix U

CONSENT FORMS

Consent Form

The staff of University Hospital and the University of Western Ontario are conducting a research study on how families communicate. The study will require your participation in one half-hour session during which you will be asked to complete some questionnaires and be briefly interviewed. You will also be asked to participate in three two-hour sessions with one of your children -- one session during the next week or so, one in about six weeks, and the third six months later. You will receive $15.00 for each session in which you and your family participate in order to cover babysitting and/or transportation costs. The study involves essentially no discomfort or risk; each session requires that you complete some questionnaires, and during this time your child will also fill out some forms. You will then be asked to play some games with your child, and later to discuss some selected topics together as a family. These sessions will be videotaped for purposes of scoring, and the tapes will be erased after they are scored. All information will be coded and subjected to statistical analysis. There will be no disclosure of your name, and you will not be identified in any way. The study is completely independent of any treatment you are now receiving or may receive in the future. You may withdraw your consent and discontinue participation in this study at any time. We shall be pleased to answer any further questions you may have concerning this study. If you should have any questions or concerns in the future, please contact Dr. Ian H. Gotlib at 679-6177.

I, _____ agree to participate in the research study which is described above.

Date: _____ _____

Signature of Participant

_____

Signature of Witness

Consent Form

The staff of London Psychiatric Hospital and the University of Western Ontario are conducting a research study on how families communicate. The study will require your participation in one half-hour session during which you will be asked to complete some questionnaires and be briefly interviewed. You will also be asked to participate in three two-hour sessions with one of your children -- one session during the next week or so, one in about six weeks, and the third six months later. You will receive $15.00 for each session in which you and your family participate in order to cover babysitting and/or transportation costs. The study involves essentially no discomfort or risk; each session requires that you complete some questionnaires, and during this time your child will also fill out some forms. You will then be asked to play some games with your child, and later to discuss some selected topics together as a family. These sessions will be videotaped for purposes of scoring, and the tapes will be erased after they are scored. All information will be coded and subjected to statistical analysis. There will be no disclosure of your name, and you will not be identified in any way. The study is completely independent of any treatment you are now receiving or may receive in the future. You may withdraw your consent and discontinue participation in this study at any time. We shall be pleased to answer any further questions you may have concerning this study. If you should have any questions or concerns in the future, please contact Dr. Ian H. Gotlib at 679-6177.

I, _____ agree to participate in the research study which is described above.

Date: _____ _____

Signature of Participant

_____

Signature of Witness

Consent Form

The staff of Family Service London and the University of Western Ontario are conducting a research study on how families communicate. The study will require your participation in one half-hour session during which you will be asked to complete some questionnaires and be briefly interviewed. You will also be asked to participate in three two-hour sessions with one of your children -- one session during the next week or so, one in about six weeks, and the third six months later. You will receive $15.00 for each session in which you and your family participate in order to cover babysitting and/or transportation costs. The study involves essentially no discomfort or risk; each session requires that you complete some questionnaires, and during this time your child will also fill out some forms. You will then be asked to play some games with your child, and later to discuss some selected topics together as a family. These sessions will be videotaped for purposes of scoring, and the tapes will be erased after they are scored. All information will be coded and subjected to statistical analysis. There will be no disclosure of your name, and you will not be identified in any way. The study is completely independent of any treatment you are now receiving or may receive in the future. You may withdraw your consent and discontinue participation in this study at any time. We shall be pleased to answer any further questions you may have concerning this study. If you should have any questions or concerns in the future, please contact Dr. Ian H. Gotlib at 679-6177.

I, _____ agree to participate in the research study which is described above.

Date: _____ _____

Signature of Participant

_____

Signature of Witness

Consent Form

The staff of St. Joseph's Hospital and the University of Western Ontario are conducting a research study on how families communicate. The study will require your participation in one half-hour session during which you will be asked to complete some questionnaires and be briefly interviewed. You will also be asked to participate in three two-hour sessions with one of your children -- one session during the next week or so, one in about six weeks, and the third six months later. You will receive $15.00 for each session in which you and your family participate in order to cover babysitting and/or transportation costs. The study involves essentially no discomfort or risk; each session requires that you complete some questionnaires, and during this time your child will also fill out some forms. You will then be asked to play some games with your child, and later to discuss some selected topics together as a family. These sessions will be videotaped for purposes of scoring, and the tapes will be erased after they are scored. All information will be coded and subjected to statistical analysis. There will be no disclosure of your name, and you will not be identified in any way. The study is completely independent of any treatment you are now receiving or may receive in the future. You may withdraw your consent and discontinue participation in this study at any time. We shall be pleased to answer any further questions you may have concerning this study. If you should have any questions or concerns in the future, please contact Dr. Ian H. Gotlib at 679-6177.

I, _____ agree to participate in the research study which is described above.

Date: _____ _____

Signature of Participant

_____

Signature of Witness

8. ☐ ALL BAD THINGS ARE MY FAULT
☐ MANY BAD THINGS ARE MY FAULT
☐ BAD THINGS ARE NOT USUALLY MY FAULT

9. ☐ I DO NOT THINK ABOUT KILLING MYSELF
☐ I THINK ABOUT KILLING MYSELF BUT I WOULD NOT DO IT
☐ I WANT TO KILL MYSELF

10. ☐ I FEEL LIKE CRYING EVERYDAY
☐ I FEEL LIKE CRYING MANY DAYS
☐ I FEEL LIKE CRYING ONCE IN A WHILE

11. ☐ THINGS BOTHER ME ALL THE TIME
☐ THINGS BOTHER ME MANY TIMES
☐ THINGS BOTHER ME ONCE IN A WHILE

12. ☐ I LIKE BEING WITH PEOPLE
☐ I DO NOT LIKE BEING WITH PEOPLE MANY TIMES
☐ I DO NOT WANT TO BE WITH PEOPLE AT ALL

13. ☐ I CANNOT MAKE UP MY MIND ABOUT THINGS
☐ IT IS HARD TO MAKE UP MY MIND ABOUT THINGS
☐ I MAKE UP MY MIND ABOUT THINGS EASILY

14. ☐ I LOOK O.K.
☐ THERE ARE SOME BAD THINGS ABOUT MY LOOKS
☐ I LOOK UGLY

15. ☐ I HAVE TO PUSH MYSELF ALL THE TIME TO DO MY SCHOOLWORK
☐ I HAVE TO PUSH MYSELF MANY TIMES TO DO MY SCHOOLWORK
☐ DOING SCHOOLWORK IS NOT A BIG PROBLEM